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Cultural Wage Differentials Among United States Immigrants

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Abstract

This project will attempt to take a modem snapshot of the ongoing process of immigration and cultural diversification, examine the problem of immigrant adaptation into the American way of life and explore which groups, if any, have an advantage when it comes to integrating into American society. More specifically this paper will address the question of what role cultural factors have in determining the standard of living of immigrants. Section II deals with related research on the topic. Section III will lay out the theoretical foundation and propose the hypotheses. Section N explains the empirical model. Section V discusses the results of the model and section VI draws conclusions from the results and makes suggestions for fiuther research.

Cultural Wage Differentials Among United States Immigrants

William Takahashi

I. INTRODUCTION

Who were the first immigrants in what is now the United States? Asians supposedly crossed the Bering Strait and traveled south into the fertile lands of North America. The Vikings were also said to have traveled to, though not settled in, America. In modern history the first immigrants to journey to this continent were those that settled at Jamestown and Roanoke. These English immigrants were soon joined by others from their nation trying to escape religious persecution and a strict class structure. Eventually they would fight other immigrants from France and Spain and even the native population, gaining dominance on the continent. From the point of independence through today the United States has undergone almost continual immigration and in turn, cultural diversification. During this time political debates have raged over how many and what groups of people should be allowed into the nation. Beyond the political argument the fact remains that no matter what the policy, immigrants have traveled from all over the world to take advantage of America's democracy and capitalism but not without incurring a cost. Some argue that after this cost is paid immigrants are accepted as "Americans" and a more diverse and talented nation results (Ehrenberg 1994). Others contend that the stigma of immigration lasts much longer and in actuality takes generations for assimilation to occur.

The Irish in the 1840s, the Germans in the 1850s and Southern and Eastern Europeans in the early twentieth century all had difficulty integrating themselves into American society so it follows logically that immigrants today would also have a difficult time with economic, political and cultural adaptation. This project will attempt to take a modern snapshot of the ongoing process of immigration and cultural diversification, examine the problem of immigrant adaptation into the American way of life and explore which groups, if any, have an advantage when it comes to integrating into American society. More specifically this paper will address the question of what role cultural factors have in determining the standard of living of immigrants. Section II deals with related research on the topic. Section III will lay out the theoretical foundation and propose the hypotheses. Section IV explains the empirical model. Section V discusses the results of the model and section VI draws conclusions from the results and makes suggestions for further research.

II. LITERATURE REVIEW

Before relevant research can be explored, basic concepts of the research problem must be operationalized. In order to provide focus and testability to the research problem of immigrant adaptation, everything will be placed within the economic context of the United States labor market. In other words, wages will be the proxy by which to measure the relative differences in stocks of human capital found between different immigrant groups. Using the U.S. labor market as a framework for this particular immigration study, relevant literature could then be compiled. One of the most useful studies was one entitled "Earnings Differentials Between Natives and Immigrants With a College Degree" by Nasser Daneshvary (1993). This article lays out a fairly complex model in an

attempt to study wage differentials between natives and immigrants and introduces variables like location and occupation. Location is important to control for because different areas of the country may be more conducive to immigrant adaptation. Occupation is also a key variable because it accounts for the possible differences in what people have chosen in terms of their professions. Similar levels of education in different fields are not necessarily equal in terms of labor market value (Scholz 1995). Daneshvary ran separate regressions for each immigrant group and his results did not show a significant difference in the coefficients between groups, like education, work experience and occupation but his sample was somewhat restricted.

"Wages will be the proxy by which to measure the relative differences in stocks of human capital found between different immigrant groups."

A similar study was performed on a Canadian sample of immigrant and native workers entitled "The Link Between Immigration and Unemployment in Canada" co-authored by William Marr and Pierre Siklos (1994). Although they use unemployment as the proxy for immigrant disadvantages and a sample of Canadian workers instead of American, their results are conclusive that there is a significant difference in wages, in favor of native workers in the labor market. Thomas R. Bailey (1987) made a large contribution to the study of immigrant and native wage differentials with his book "Immigrant and Native Workers: Contrasts and Competition." He too finds that there is a difference in the wages in favor of natives but he hypothesizes that this is a result of separate labor markets for immigrants and natives instead of a difference in the workers themselves. His sample consisted of immigrants in the restaurant industry and native laborers in the fast food industry.

An important figure in the study of immigration within labor economics is Barry R. Chiswick. Chiswick (1992) performed a historical study of Jewish immigrant wages using a data set from the early twentieth century. This study, entitled "Jewish Immigrant Wages in America in 1909: An Analysis of The Dillingham Commission Data," took a snapshot of the continuing process of immigration and diversification in 1909 just as I will attempt to do for 1991. Using the Dillingham Commission data set and regression analysis, he found that weekly Jewish immigrant wages exceeded those of other immigrants from Southern and Eastern Europe and, in turn, were not quite as high as wages earned by immigrants from Canada and Northwestern Europe. He also found that Jewish wages exceed those of all other immigrants and reached parity with white native males after only four and a half years in the United States.

Deborah A. Cobb-Clark (1992) added a dimension to the study of immigrant wage differentials with her article entitled "Immigrant Selectivity and Wages: The Evidence for Women." She explicitly studies the female immigration experience and discovers that it is not only the nation of origin and personal characteristics that determine wage differentials among immigrants, but also the context within which the immigration decision was made. She finds that conditions surrounding the immigration decision like ratios considering U.S. to immigrant nation returns to education, work preferences and whether or not the woman was a "household" immigrant (a term she used to describe women who spend most of their time on household production).

Ronald G. Ehrenberg (1994) wrote a book entitled *Labor Markets and Integrating National Economies* that provides an underlying theme to all research regarding immigration. That is the idea that as immigrants are accepted into society, a more diverse society results and the cultural differences of the next immigrant group may not be as profound. Ehrenberg believes that eventually cultural and custom differences throughout the world will slowly start to disappear, making the amount of cultural adaptation necessary decrease over time. It is that very level of cultural adaptation necessary, within the U.S. labor market, inherent in the immigrant workers that this project will attempt to measure. The above book helps explain the evolution of the diversification of the United States and it explicitly incorporates one's culture into one's level of human capital. Simply put, according to Ehrenberg, where one is from may very well affect what one is worth in the labor market.

III. THEORY

Since the study of cultural adaptation will be done within the framework of the U.S. labor market, it is important to explore the theoretical basis underlying certain assumptions and anticipated results. Wages, the variable I will use to measure the stocks of human capital inherent in different immigrant groups, is determined by the supply and demand for labor. The difficulty with using wages and labor market theory is that although many studies have found wage differentials to exist, it is exceedingly more difficult to explain exactly why they exist. In the specific case of immigrant wage differentials the explanation might be on the supply side, meaning a difference in terms of worker quality, or on the demand side, meaning differences in employer preferences towards worker race and gender. This particular study will focus on the wage differences between different groups of immigrants on the supply side of the labor market. Controlling for other factors that contribute to one's level of human capital, the remaining wage differential should reflect the cultural differences that diverse immigrants bring with them in the form of human capital to the United States. However at the same time this differential could reflect "demand-side" factors like discrimination. Discrimination is difficult to quantify and nearly impossible to control for. While it is acknowledged that cultural differences may be at the center of any wage differentials that are found, it is important to note that the explanation for the wage differentials among immigrants with different cultural backgrounds may also be due to discrimination in the labor market. One can even argue that the presence of discrimination may in fact be due to the very cultural differences focused on in this study, which would make cultural differences the cause of discrimination. In this case, whether the wage differentials are the result of cultural differences or the discrimination caused by cultural differences, identifying the extent to which wage differentials exist among different immigrant groups is important to the study of the U.S. labor market.

Whether on the supply side or the demand side, before complete labor market decisions are made, some workers prefer to make certain investments in themselves. By definition investments are actions that "entail an initial cost that one hopes to recoup over some period of time" (Ehrenberg and Smith 1994, p.279). These investments made in one's own productive capacity are called investments in human capital. Human capital theory, developed primarily by Gary Becker, states that human beings possess a stock of productive capital which is rented out to their employers. The value of this stock of capital is whatever wage it derives from the labor market (Ehrenberg and Smith 1994). Of course one can improve upon his stock of capital and in turn raise the earnings he would

receive for his services. This is done primarily through education, general and specific training, migration, and the search for other employment opportunities. Immigrants possess different stocks of human capital because they migrate from different areas of the world. The cultural factors that are hypothesized to affect an immigrant's stock of human capital are laid out at the end of this section.

Previous research overwhelmingly supports this theory. In studying wage differentials education levels are consistently significant (Cobb-Clark 1993; Chiswick 1992; Daneshvary 1993). Work experience, which would logically embody worker training, was also previously found to be significant (Daneshvary 1993) and the very fact that migration has continued for so long would seem to lend support to the fact that it increases the earnings received for some people's stocks of human capital. All of these factors are widely acknowledged as increasing human capital, but is the list exhaustive? Recent studies have also pointed human capital theory in a new direction (Ehrenberg 1994), asking whether or not cultural factors like command of the language, experience with capitalism and democracy, or even religious customs can, in fact, contribute to or detract from one's human capital.

Graphically the investments in human capital can be seen (see FIGURE 1). The demand for labor is also the marginal revenue product of labor. Increasing one's stock of human capital increases his productivity and thus his marginal revenue product. This is seen in the graph as a shifting out of the demand curve from D to D1. As this shift occurs, the wage level (measured along the vertical axis) increases. As mentioned before, immigrants have unique stocks of human capital. These stocks can be increased through traditional investments like education and

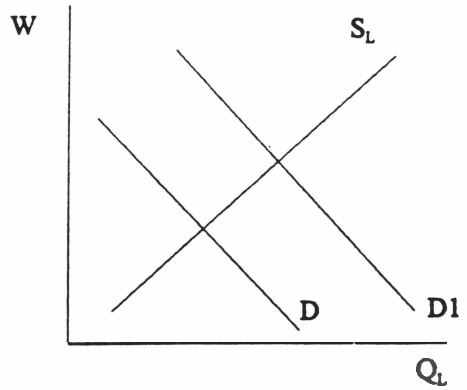

FIGURE 1: Labor supply & demand

work experience but they are also affected by cultural factors they take with them from their native lands.

This study will focus in on these possible cultural factors of human capital within the realm of United States immigrants. Controlling for other proven human capital determinants, it is possible to hypothesize that cultural differences will have an impact on human capital levels and thus, wages. After splitting the sample of immigrants into very simple groups, first by cultural institutions and then by geographical regions, the remaining wage differential will be examined. If human capital theory holds, then immigrants coming from more similar societies will be more successful at integrating culturally, making them more adaptable to the labor market and, in turn, more able to earn higher wages. On the other hand, those immigrants traveling from relatively different nations, politically, socially and economically, will have a more difficult time integrating into U.S. society, making them less adaptable to the U.S. labor market and thus earning them lower wages relative to other immigrants. The models constructed in this project will test the following hypotheses: 1) Immigrants migrating from democratic nations will earn higher wages than immigrants not accustomed to democracy. 2) Immigrants migrating from

English speaking nations will obtain higher wages than those immigrants who must first break a communication barrier. 3) Immigrants migrating from predominantly Christian nations will earn more than immigrants who must adapt to the customs of the United States. 4) Immigrants from economically industrialized nations will achieve higher wages than immigrants migrating from primarily agrarian nations. 5) Immigrants from culturally and historically similar regions of the world will earn higher wages than those traveling from regions not influenced by the same historical factors. 6) The established investments in human capital like education and work experience should hold for the entire immigrant group.

IV. RESEARCH METHOD

In order to test the hypothesis that one's culture contributes to his level of human capital and, consequently, his wage, key terms need to be operationalized. Culture itself may be defined a number of different ways. Culture is an almost all encompassing term that may refer to somebody's language, history, customs or even religious affiliation. This makes it difficult to operationalize the concept of culture into measurable terms that can be collected and analyzed. This research design will ultimately take two different paths, one measuring culture as institutional and one measuring culture as geographical. As mentioned above, wages earned will be used as a proxy for human capital.

The sample I have chosen to test my hypothesis is from the National Longitudinal Survey of Youth (NLSY). This was a panel study that ranged from 1979 through 1991 and out of 12,686 people interviewed, 874 were immigrants so I am fortunate to have a relatively large sample to start with. However, this database is not without its shortcomings. As it turns out any person interviewed that did not answer a question that is used as a variable in my study is completely thrown out of the sample, shrinking its size somewhat. Also the database specifically over-samples minorities and those people of lower incomes which may account for the large sample of immigrants. Another drawback of the NLSY is the high potential of reactivity which means that the subjects project themselves in the most favorable way simply because they know they are being studied. Finally, it is the National Longitudinal Survey of Youth which means that many of the immigrants in the sample are actually husbands, wives, sons and daughters of the person whom actually made the decision to immigrate.

Despite these faults, the NLSY is an extremely effective foundation on which to build this study. By throwing out incomplete cases the results gain validity even if the sample does shrink some. The over-sampling of minorities is actually helpful in this particular situation since I am comparing the immigrants to each other and not the native population. In the long run, I believe the potential for reactivity to be a small price to pay for the reliability of an established database like the NLSY. Finally, the fact that many of the sample came to the United States at young ages will hopefully be addressed with certain controls built into the design.

This brings us to the variables. Since I am testing human capital and the effects of culture on human capital, the dependent variable will be wages earned in the year 1991. Wages reflect the investments made in one's stock of human capital. the independent variables will be split up into two groups, those that are standard investments in human capital, and those that are unique to immigrants. The independent variables that reflect these investments are taken directly from human capital theory and also previous studies. Education (EDUCATE), measured in years of schooling completed, is a proven determinant of human capital. As one's level of education rises, his or her wages should reflect that

investment positively. Work experience (WORKEXP) is also included in most human capital studies and the training, both specific and general, received in a working environment undoubtedly contribute to human capital levels. This variable is measured in average number of weeks worked per year, over the last twelve years.

"This research design will ultimately take two different paths, one measuring culture as institutional and one measuring culture as geographical."

Other variables that affect wages but are not part of human capital theory are gender (MALE), whether a person lives in an urban or rural setting (URBAN), and the number of years spent in the United States (USYEARS). This control is important because as immigrants spend more time in the United States, the cultural effects that I am trying to capture would eventually start to deteriorate. Therefore by incorporating their "length of stay" the effects of time can be eliminated. The final control is the region of the country that the immigrants have decided to settle in. The northeastern part of the nation is more ethnically diverse and tends to pay out slightly inflated wages (Daneshvary 1993). Since the dependent variable of wages is not measured in real terms the changes in nominal wages throughout different areas of the country are important to control for. The U.S. is divided up into simple regions, the northeast (NEAST), north central (NCENTRAL), west (WEST) and south (SOUTH). In this case the omitted variable is the North Central because the study done by Nasser Daneshvary (1993) showed the North Central to display the most depressed nominal wages for immigrants. It is important to note that an important determinant of human capital is absent from the model. Age is usually included in studies of wage differentials, however having already controlled for work experience and length of stay in the United States, I believe the correlation between those variables and age would be too strong.

After the controls are in place, variables unique to immigrants can be analyzed. As mentioned before two separate models will be tested. These two models are only different in their independent variables outside of the controls already mentioned. In the first model I will take an institutional approach to culture and measure it through three main institutions of culture. The first of these institutions is the political system of the nation of origin. The second is the language of the nation of origin and the third institution is the primary religion of the nation of origin. Political orientation of the immigrants will be measured through a simple "dummy" variable (DEMOCRCY) that equals 1 if the immigrant comes from a democratic nation and 0 if the immigrant comes from any other type of government. Strict guidelines are used in separating the nations into a dichotomy when in reality the nations represent a wide scale in terms of the level of democracy. Nations must have a strong democratic tradition to be considered democracies in this sample. That is to say, nations must have popularly elected officials and the democratic system in use must not have been interrupted by, for example, a military or authoritarian coup d'état, since before any of the sampled individuals were born (1965). Using a CD-ROM encyclopedia (Encarta '95) I was able to determine if a nation has had an undisturbed, democratic form of government throughout the period specified.

The same technique will be used for language (ENGLISH). A number 1 will be assigned to immigrants coming from English

speaking nations and a 0 assigned to those born in a country that predominantly speaks a different language. The ability to communicate is a large part of human capital and language barriers are not easily overcome in the workplace (Ehrenberg 1994). The final cultural institution to be measured is religion (CHRISTIAN). This is probably the least intuitive of the variables considering that the United States is comprised of many different religions; however, the great majority of Americans are in fact Christian and many of the customs in the U.S. clearly stem from a Christian tradition. One cannot deny that in many instances religion is a large part of culture and those immigrants coming from nations that are not predominantly Christian may be at a disadvantage in that they have to deal with the adaptation to the different customs of the United States. Having to adapt to the traditions of a predominantly Christian nation may produce a strain that affects an immigrant's productivity. Thus another dummy is created, assigning a 1 to immigrants migrating from nations with a predominantly Christian background and a 0 to those immigrants hailing from nations that usually practice other religions such as Judaism, Hinduism, Muslim or Buddhism (just to name a few). The final institutional variable is intended to capture the similarity or difference in the economies of the native nations. (INDUSTRY) has a value of 1 for all immigrants coming from nations in which 50% or more of GDP is generated from manufacturing or service industries. This variable will hopefully show the advantage immigrants receive if their native countries have similar employment opportunities.

So the first model is as follows:

WAGE = b1EDUCATE + b2WORKEXP + b3MALE + b4URBAN + b5USYEARS + b6NEAST + b7 SOUTH + b8WEST + b9DEMOCRCY + b10ENGLISH + b11CHRISTIAN + b12INDUSTRY

The expectations of this model are straightforward. All of the control variables (EDUCATE), (WORKEXP), (MALE), (URBAN) and (USYEARS) are viewed as positively affecting human capital; thus, they should all obtain positive coefficients. The three regions included in the model should all reflect higher wages than the North Central with the northeast exhibiting the largest coefficient. The independent variables of DEMOCRCY, ENGLISH, INDUSTRY and CHRISTIAN are set up in a way that, according to theory, they too should reflect increases in stocks of immigrant human capital and therefore show positive coefficients.

The second model takes a geographical approach to the operationalization of culture. In this model the immigrants are not separated by social institutions, rather they are simply divided up into regions around the globe. Instead of political socialization, language and religion, the immigrants are grouped into regions, which is by no means a simple task. The NLSY contains immigrants from all over the world and many of the nations represented do not fit into neat continental categories. The first group created was Europe (EUROPE). This group includes immigrants from Canada. It was my original intention to make Canada a separate group of immigrants but because of its small sample size it was necessary to include Canadian immigrants in the European group. The two regions contain many of the same socio-political factors that are embodied in the first model. Also, in regard to Europe, it is recognized that Eastern and Western Europe have experienced somewhat different cultural experiences but because of a small sample from Eastern Europe, the two were placed together. The second group is made up of immigrants from Central and South America (SOUTHAM). Separate from this category is a group of immigrants from the West Indies. The Caribbean islands, along with nations like Cuba and Bermuda are included in the group of nations labeled (ISLANDS). Although it

may seem logical to combine this group with (SOUTHAM), the sheer size of the number of immigrants from this specific location in the NLSY lends itself to separating the two categories and in retrospect, clearly represents the trends in immigration that we continue to see in the last fifteen to twenty years. Immigrants from Mexico make up a large part of the sample. Because of this, the regional category of (MEXICO) was created. This not only reflects the tremendous amount of immigration from our North American neighbor but it also gives us the opportunity to examine the effects of immigration from a nation within such close proximity to the United States. The final groups of immigrants in this model are those hailing from the Middle East and Africa (MIDEAST) and Asia (ASIA). It is important to note that the Pacific Island nations, including the Philippines were placed in the (ASIA) category, mostly for lack of a better fit. These groups are viewed as having the least in common, culturally, with the United States. The religions, traditions, governments, languages and economies of the Middle East, Africa and Asia are very diverse but as a whole they can be viewed as being extremely different from the American tradition of democracy, capitalism, Christianity and western civilization as a whole. The omitted group in this equation are the immigrants from Europe and Canada. This group is seen as having the most in common, culturally and linguistically, with the United States and it is a large enough group that a legitimate comparison with the other groups can be made.

The second model is as follows:

WAGE = b1EDUCATE + b2WORKEXP + b3MALE + b4URBAN + b5 USYEARS + b6 NEAST + b7 SOUTH + b8WEST + b9MIDEAST + b10MEXICO + b11ISLANDS + b12ASIA + b13SOUTHAM

In this model, like the first, the controls are expected to have a positive impact on WAGE. However, the explanatory regional categories are a little more difficult to predict.

"Having to adapt to the traditions of a predominantly Christian nation may produce a strain that affects an immigrant's productivity."

Since the omitted variables are the regions from Europe and Canada, areas viewed as having the most in common with United States culture, all of the other regions included in the model should reflect negative coefficients. On the other hand, the exact order of the different regions is hard to tell. Taking into account historical factors like colonization and interaction throughout the centuries my own intuition leads me to believe that (SOUTHAM) will follow (MEXICO) and (ISLANDS), followed by (ASIA) and finally the Middle East and Africa (MIDEAST). Mexican immigrants have been successful at residing in areas that most resemble Mexico's (Winegarden and Khor 1991). The Caribbean immigrants, along with South and Central American ones, have shared in the experience of European colonization and have retained some of the traditions simultaneously implanted in the United States during this time period. Asia is historically diverse and its success at isolationism until the twentieth century leads me to believe that this region's immigrants would have a difficult time adapting to United States customs. Finally, the group from Africa and the Middle East share almost nothing in common with the United States and therefore should display the lowest wages.

All of the information needed to separate

the nations into institutional and geographical regions was taken from the CD-ROM encyclopedia Encarta '95. Also, a list of all the nations and how they were categorized for each variable can be found in appendix A.

V. RESULTS

The NLSY data was extracted off of the CD-ROM containing the survey and transferred into SPSS software. From there the variables were coded and each individual immigrant was given a 1 or a 0 for each of the institutions and were classified by region. All of the classifications can be found in appendix A. Unfortunately, during the coding process many cases were lost due to missing values in the survey. As it turns out, the compilation of the (WORKEXP) variable was the prime reason for this. This variable was measured as an average over the previous eleven years prior to 1991 so the very nature of the variable lends itself to missing values. In an attempt to increase the depleted sample size, the age of the immigrants (AGE) replaced work experience with the hope that this variable would capture some of the human capital acquired over time. The first model was run using the OLS regression technique and the empirical results are displayed (see FIGURE 2).

FIGURE 2: Results from Model 1

Variable	Coefficient	T-Statistic	
EDUCATE	1414.928	5.961	***
AGE	751.477	2.407	**
MALE	10539.579	7.808	***
URBAN	5449.801	2.308	**
NEAST	5164.131	1.983	**
WEST	3868.792	1.635	*
SOUTH	373.744	.146	
USYEARS	93.766	.655	
DEMOCRCY	-2324.511	-.991	
ENGLISH	1218.526	.522	
CHRISTIAN	-3777.411	-1.522	
INDUSTRY	517.612	.263	

* significant at the .10 level
** significant at the .05 level
*** significant at the .01 level

As you may recall the first four hypotheses are embodied in the first model. 1) Immigrants from democratic nations will achieve higher wages, 2) immigrants from English speaking nations will obtain higher wages, 3) immigrants from predominantly Christian nations will achieve higher wages and 4) immigrants from industrialized nations will obtain higher wages. The first hypothesis was not confirmed. The DEMOCRCY variable had a substantial coefficient ($2,324.51) but it was negative. This negative effect is not what was expected, apparently with regards to this model, coming from a democratic nation actually decreases an immigrants wages. However, even this is difficult to say because the variable was not significant.

The second hypothesis which stated that coming from an English speaking nation would reduce a communication barrier and therefore enable the immigrants to obtain higher wages was also not supported by the empirical data. The coefficient was relatively small ($1,218.53) and even though the effect was positive, this variable also turned out to be insignificant in its impact upon wages.

The third hypothesis which stated that immigrants migrating from predominantly Christian nations would more easily adapt to United States customs turned out some of the most interesting empirical results. The coefficient on the CHRISTIAN variable was very large ($3,777.41) but was found to have the opposite sign than that which was expected. This negative effect, however, is not significant. One reason for the unexpected results may be that the predominantly Catholic nations of Central and South America were included in the Christian variable. In the future it may be worthwhile for researchers to distinguish between Catholicism and Protestantism.

The fourth and final hypothesis tested in this model was that immigrants migrating from industrialized nations would have an advantage over immigrants coming from agrarian or extractive nations. This variable resulted in a positive coefficient of ($517.61) which is fairly small and, as it turns out, insignificant. Logically this variable would more likely be significant if the immigrants were employed in an industrial manner. Since the occupation of the immigrants was not controlled for, it may be the case that many of the immigrants from extractive or agrarian nations found employment in those fields. This would account for the insignificance of (INDUSTRY). The r squared of .24900 tells us that this model accounted for 25% of the variance in wage. Because of many hidden factors that help to determine one's wage like innate ability and work ethic, this was a very satisfactory r squared. Overall the results of this model seem to suggest that the cultural institutions of language, political socialization, religious customs, and economic background do not significantly affect the stocks of human capital among immigrants and therefore do not play a role when it comes to determining the wages immigrants earn once they reach the United States.

The second model did not perform much better. The results of this model are displayed (see FIGURE 3).

FIGURE 3: Results from Model 2

Variable	Coefficient	T-Statistic	
EDUCATE	1400.659	566.9628	***
AGE	781.649	2.492	**
MALE	10580.885	7.807	***
URBAN	5837.005	2.461	**
NEAST	1955.672	.697	
WEST	3007.952	1.241	
SOUTH	-456.072	-.171	
USYEARS	56.463	.401	
ISLANDS	2397.737	1.006	
MEXICO	-2451.987	-1.088	
SOUTHAM	4137.916	1.509	
ASIA	4227.806	1.136	
MIDEAST	-3890.885	.67	

* significant at the .10 level
** significant at the .05 level
*** significant at the .001 level

This model hypothesized that immigrants coming from regions with similar cultural backgrounds would fair better in the U.S. labor market. The regions were broken down into Europe (which includes Canada), South and Central America, Asia, the Middle East and Africa, Mexico and the islands off the coast of North America. In this model the omitted group was the Europeans and Canadians because it was reasoned that United States culture is the direct offspring of the culture found in this area of the world. Therefore, all other regions were expected to achieve negative coefficients since their effects would be measured relative to that of Europe and Canada. Surprisingly, three of the five other regions displayed positive instead of negative coefficients.

The South and Central American variable had a positive coefficient of ($4,137.92) and received a probability value of .1321 which means that we can be 86.7% confident that this positive relationship with respect to European immigrant wages is valid. South and Central American immigrants were heavily sampled in the NLSY (see appendix A) so these results should give us a clear picture of the situation South and Central American immigrants are currently undergoing.

The Asian coefficient was very large ($4,227.81) showing us that in this sample Asians tended to do very well in terms of wage, compared to the European group. However according to the criteria set up for this study, this variable was also insignificant. Some have argued that Asian education is more rigorous and of a higher quality. This would account for the large, positive coefficient. However, this is a difficult assertion to prove and since the regression

obtained an r squared of only .249, including education, it is more likely that this result is more the product of the other hidden factors that determines one's value in the labor market.

The Islands category, like the other regions, was not a significant variable. This variable also displayed the opposite sign from that which was expected and as a whole earned a coefficient of ($2,397.74). This positive result is not all that surprising since many of the islands that make up this region like Bermuda, the Dominican Republic, the Bahamas and the Virgin Islands have experienced heavy United States influence in their political and economic affairs stemming all the way back to the Monroe Doctrine. Also as mentioned before, the exploration and colonization of these areas coincided with that of The United States. These three variables suggest that the cultural similarity of entire regions does not affect the wages earned by immigrants once they reach the United States.

The other two groups did display the expected negative sign. Immigrants from the Middle East and Africa displayed a negative coefficient of ($3,890.88) and it too turned out to be insignificant. During the regression process the sample was decreased and the (MIDEAST) variable experienced the largest loss. With the small sample that remained of immigrants from the Middle East or Africa, it is unlikely that any significant effect would surface. The large sample from Mexico did not do well in terms of wage, achieving a coefficient of negative ($2,451.99) and an insignificant T-Statistic of -1.088. These results clearly fail to support the fifth hypothesis that immigrants from culturally similar regions will obtain higher wages than those from geographical regions which have had relatively less interaction with the United States.

The final and sixth hypothesis indicated that traditional human capital investments should still increase wages for the immigrant group. This hypothesis was confirmed. Education was significant at the .001 level in both models and every additional year of education added around $1,400.00 to an immigrants income. Work experience, the other traditional human capital investment, was unable to be measured. However, the (AGE) variable, hopefully capturing some of the same aspects of human capital development as work experience, was significant in both models. It appears as though for every year an immigrant ages, and in the process acquires experience in dealing with others, his wages can be expected to increase by about $750.00. Both of these variables are proven determinants of wage rates and in this respect my two models support the existing human capital theory.

The final aspects of the two models are the controls. The control for gender was positive for male immigrants, as expected, but the coefficient was surprisingly large in both models. With significance at the .001 level in both models, being male increased immigrant wages by approximately $10,500.00. This result conveys a remarkable difference in the wages achieved between males and females. This difference may be the result of gender discrimination or possibly a difference in the type of work female and male immigrants engage in.

Another control was the area of residence within the United States. In model 1, as expected, the North East region of the country displayed the highest wages and was significant. The surprising result of this control was that in model 1 the immigrants residing in the western area of the country also enjoyed a significant increase in wages relative to those residing in the North Central part of the nation. Interestingly, when these variables were regressed in model 2, neither turned out to be significant. The (SOUTH) variable was found to be negative relative to the North Central area of the nation in model 2 but was found to be positive in model 1. In both equations, living in the south produced an

insignificant difference in wages when compared to immigrants living in the North Central area.

The control variable (USYEARS) was not found to be significant in either model. It was reasoned that the longer an immigrant had to adapt to life in the U.S., the more productive he would become. This increased productivity would then be expressed through greater wages. This study shows no empirical evidence that this is the case. Even though (USYEARS) is positive in both models, it has a small coefficient and is insignificant in both. The final control was whether or not the immigrants lived in an urban or rural area. Like (USYEARS) the (URBAN) variable was positive; unlike (USYEARS), the urban dummy variable was very large and significant. According to this study, living in an urban area increases an immigrant's income by approximately $5,500.00. It is important to note that many immigrants (291) failed to answer this question, so for the purpose of retaining the entire sample, a rural setting was given to all those who did not answer. This being the case, it is important to interpret these particular results cautiously.

Relating these results back to the literature, this study clearly corresponds to other findings in that increases in education and work experience have a positive and significant effect on wages (Chiswick 1992; Bailey 1987). Also, the results of some of the controls used supports previous efforts in the area like gender (Cobb-Clark 1993) and region (Daneshvary 1993). Finally, in terms of finding a significant wage differential between immigrants, the results vary and typically depend on the sample used in the research.

VI. CONCLUSIONS

The results of my two models were disappointing in that the results for the hypotheses made regarding the unique factors that determine an immigrant's stock of human capital were found to be insignificant. Cultural differences among immigrants, measured institutionally and geographically, did not affect their stocks of human capital and thus change their wages. One aspect of immigration that may be at the center of these findings is simply the motivation behind the immigrant's decision to migrate from one nation to another. Some immigrants decide to migrate because they have an opportunity to increase their already substantial standard of living while others make the transition out of necessity for subsistence. The make-up of whether or not the immigrants are skilled or unskilled plays an important role in the wages they receive when they reach the United States. This occupational difference in immigrants cannot be entirely captured through education, age and the other controls available in this study.

This being the case it is important to note that the established investments in human capital measured through age, like education and experience, held true to theory. These investments were highly positive and significant, proving that they play a key role in the wages workers earn in the U.S. labor market, no matter what their nations of origin might be. Important controls in determining wages, like whether or not a person lives in a rural or urban area, the region of the nation a person resides in, and gender, were also confirmed.

Even though, unexpectedly, the cultural differences were not found to affect the stocks of human capital inherent in immigrants, the results are still positive. The finding that wages do not fluctuate significantly with differences in where a person comes from is a testament to the acceptance United States society generally exhibits when it comes to immigration. This study ultimately finds that immigrants who make investments in their own human capital can expect to be rewarded for that once they reach the United States. Yet at the same time immigrants can be reassured

that institutional and geographical differences will not play a significant role in the wages they earn, relative to other immigrants. In terms of policy this finding would seem to suggest that any quotas or limitations on immigrants, on the basis of where they come from, is unfounded and unnecessary. If the government wanted to screen immigrants so as to increase the productivity of the population that enters the country, they should do so through human capital investments and not geographical origination.

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APPENDIX A

COUNTRY	REGION	ENGLISH	DEMOCRACY	CHRISTIAN	INDUSTRY
Argentina	S/C America	no	no	yes	no
Bahamas	Islands	yes	yes	yes	no
Barbados	Islands	yes	yes	yes	no
Belgium	Europe	no	no	yes	yes
Bermuda	Islands	yes	yes	yes	yes
Bolivia	S/C America	no	yes	yes	no
Brazil	S/C America	no	yes	yes	yes
Cambodia	Asia	no	no	no	no
Canada	Europe	yes	yes	yes	yes
Quebec	Europe	no	yes	yes	yes
Chile	S/C America	no	no	yes	yes
Columbia	S/C America	no	yes	yes	no
Costa Rica	S/C America	no	yes	yes	no
Cuba	Islands	no	no	no	no
Cyprus	Mid East/Africa	no	no	no	no
Dominican Rep.	Islands	no	yes	yes	no
Ecuador	S/C America	no	yes	yes	no
El Salvador	S/C America	no	no	yes	no
England	Europe	yes	yes	yes	yes
France	Europe	no	yes	yes	yes
Fr. Guiana	S/C America	no	no	yes	no
Germany	Europe	no	yes	yes	yes
Greece	Europe	no	no	no	yes
Guatamala	S/C America	no	no	yes	no
Guinea Bissau	Mid East/Africa	no	no	no	no
Guyana	S/C America	no	no	no	no
Haiti	Islands	no	no	yes	no
Honduras	S/C America	no	no	yes	no
Hong Kong	Asia	no	no	no	yes
India	Asia	yes	yes	no	no
Iraq	Mid East/Africa	no	no	no	no
Israel	Mid East/Africa	no	yes	no	no
Italy	Europe	no	yes	yes	yes
Jamaica	Islands	yes	yes	yes	no
Japan	Asia	no	yes	no	yes
Korea	Asia	no	no	no	yes
Lebanon	Mid East/Africa	no	no	no	yes
Libya	Mid East/Africa	no	no	no	no
Mexico	S/C America	no	yes	yes	no
Morroco	Mid East/Africa	no	no	no	no
Netherlands	Europe	no	yes	yes	yes
Nicaragua	S/C America	no	no	yes	no

Nigeria	Mid East/Africa	yes	no	no	no
Panama	S/C America	no	no	yes	no
Paraguay	S/C America	no	no	yes	no
Phillipines	Asia	yes	yes	yes	no
Peru	S/C America	no	no	yes	no
Poland	Europe	no	no	yes	yes
Portugal	Europe	no	yes	yes	yes
Scandinavia	Europe	no	yes	yes	yes
South Africa	Mid East/Africa	yes	no	yes	yes
Spain	Europe	yes	yes	no	yes
Surinam	S/C America	no	no	no	no
Switzerland	Europe	no	yes	yes	yes
Taiwan	Asia	no	no	no	yes
Thailand	Asia	no	no	no	yes
Togo	Mid East/Africa	no	no	no	no
Trinidad	Islands	yes	yes	yes	yes
Turkey	Mid East/Africa	no	no	no	no
Uruguay	S/C America	no	no	yes	no
Venezuela	S/C America	no	yes	yes	yes
Vietnam	Asia	no	no	no	no
Virgin Islands	Islands	yes	no	yes	no
Yugoslavia	Europe	no	no	no	no
Carribbean	Islands	yes	no	yes	no
Pacific Islands	Asia	no	no	no	no