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Cultural Wage Differentials Among United States Immigrants

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I INTRODUCTION

One of the most debated political and social issues in contemporary America is that of immigration. As a nation of immigrants and descendants of immigrants, the United States is grappling with the conflict over whether or not continued immigration will prove to be beneficial or detrimental to the economy and society. Immigration is an issue as old as the United States itself, yet it seems as though this generation of leaders is more determined than ever to make lasting changes in the policy concerning immigration. Some argue that a consistent inflow of diverse and talented human beings will advance the nation's economy as it has in the past while others see immigration as a drain on resources and propose not only restricting immigration but also physically eliminating it by building walls and fences. While both sides of the debate have different facets that are appealing to the American public, there is a consistency that has developed between the two arguments. Successful immigrants are tolerated at a much greater level than immigrants who have difficulty integrating into American society. This project will attempt to take a modern snapshot of the ongoing process of immigration and cultural diversification within the specific economic context of the United States labor market. It will then examine the problem of immigrant adaptation into the American way of life and explore which immigrants, if any, have an advantage when it comes to integrating into American society.

More specifically this paper addresses the question: What is the role of cultural factors and other personal characteristics in determining the economic success of immigrants. This paper takes a section by section approach in attempting to answer the research question. Section II introduces the related research on the topic. Section III lays out the theoretical foundation and set forth 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

In order to provide focus and testability to the research problem of immigrant adaptation, I use a model of the United States labor market. In other words, wages will be the proxy by which to measure the relative differences in successful assimilation that occur between different immigrants. Using the economic framework for this particular immigration study, relevant literature could then be compiled.

One of the most useful studies, entitled "Earnings Differentials Between Natives and Immigrants With a College Degree" by Nasser Daneshvary, lays out a fairly complex model in an attempt to study wage differentials between natives and immigrants, controlling for education. The study focuses on the occupation of the immigrant but is most useful in its analysis of immigrant location. The residential location of the immigrant is an important variable because different areas of the country may be more or less conducive to immigrant adaptation. Also, since wages were used in his study to measure immigrant success, the inflationary aspect of certain areas of the United States compared to others was an important difference for him to account for. Daneshvary also examined occupation as a key variable because it accounts for the possible differences in what people have chosen in terms of their professions. Daneshvary ran separate regressions for each immigrant group and his results did not show a significant difference in the coefficients for education, work experience or occupation. However, he did find a significant impact in the location variable as well as whether the immigrant's dwelling is urban or rural.

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. 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 also 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 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 within four and a half years of being in the United States. The model presented in this paper replicates Chiswick's, in that like his research, it concentrates on the relative differences among immigrants instead of focusing on immigrant and native worker differentials.

Deborah A. Cobb-Clark 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 foreign 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) are important factors in determining wages. Her finding that females face lower economic returns on education and work experience will be addressed in this study.

Ronald G. Ehrenberg wrote a book entitled Labor Markets and Integrating National Economies that provides an underlying theme to all research regarding immigration. 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, is his major thesis. Ehrenberg believes that eventually cultural and customs differences will slowly start to disappear making the necessity of cultural adaptation decrease over time. It is the level of success or failure in regard to cultural adaptation, within the U.S. labor market, that this project will attempt to measure. This book helps to explain the evolution of the diversification of the United States, and it explicitly incorporates a person's culture into his or her 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. This particular work is not empirically applicable since it deals with immigration over time and I will be using a cross-sectional study. However, it does provide for an important background because it stresses that the parameters for successful immigration change over time.

One of the most established writers in the area of immigration economics is George Borjas. His article "The Economics of Immigration" puts forth the idea of "ethnic capital" and looks at cultural differences inherent in immigrants migrating from different areas in the world. Because he is mainly concerned with differentials in skill level and ethnicity, many aspects of his model were used to create and improve the model used in this study. His major finding is that in the short run, there exists an ethnic skill differential "due to the effect of ethnic spillovers on intergenerational mobility" (p.1713).

III THEORY

Since the study of immigrant 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. Current economic theory uses the concept of human capital, that is to say, the capacity or level at which human beings can contribute to production. Wages, the variable I will use to measure returns on the stocks of human capital found in different immigrants, 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 toward worker race and gender.

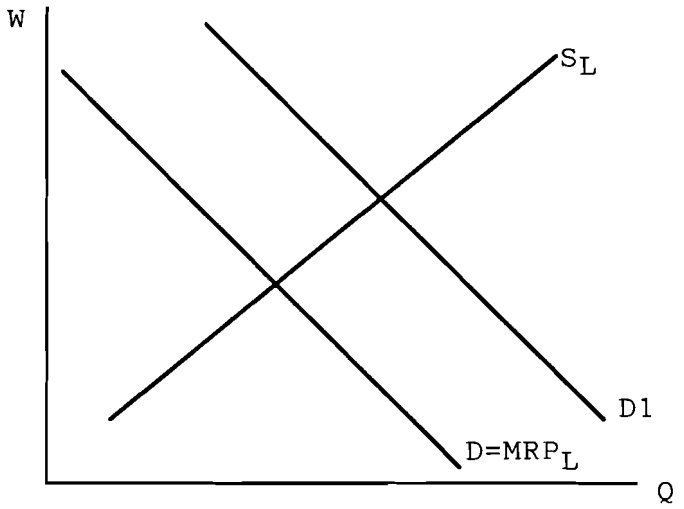
This particular study will focus on the diversification in the supply of immigrants by analyzing personal characteristics that, according to theory, affect worker productivity. It will also address possible differences in the demand for labor, often manifested in employer tastes and preferences, by looking at factors that do not affect worker productivity such as race and gender. It is important to note that discrimination in the labor market may exist for a variety of reasons. However, using human capital theory the assumption can be made that certain characteristics affect worker productivity and others do not. Testing these characteristics as independent variables would then allow us to determine whether the wage differentials among immigrants are due to factors within or beyond their control. Controlling for other factors that contribute to one's income level, the remaining wage differential should reflect the human capital differences that diverse immigrants bring with them to the United States.

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, Smith 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 posses 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 p. 279-280). Of course one can improve upon his or her stock of capital and in turn raise the earnings they would receive for their services. This is done primarily through education, general and specific training, migration and the search for other employment opportunities. Immigrants posess 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 93), (Chiswick 92), (Daneshvary 93). Work experience, which would logically embody worker training was also previously found to be significant (Daneshvary 93) and of course, all immigrants have decided to make the human capital investment in migration. The very fact that this 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 levels, but is the list exhaustive? Recent studies have also pointed human capital theory in a new direction (Ehrenberg 94), (Borjas 94) asking whether or not cultural factors like command of the language, experience with capitalism or even political socialization can, in fact, contribute to or detract from one's human capital.

The investments in human capital can be seen in the following graph.



The demand for labor is also the marginal revenue product of labor. Increasing one's stock of human capital increases their productivity and thus their marginal revenue product. As a result, the increase in the quality of the labor supply can be 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. According to theory, these stocks can be increased through traditional investments like education and work experience but they may also be affected by cultural factors they take with them from their native lands. Changes in the marginal revenue products in workers is not the only way to shift the demand for workers in the labor market. Employer tastes and preferences shift this curve as well and thus, affect the wages earned by workers. An employer incurring the cost of having a taste for discrimination (Ehrenberg & Smith) could shift the demand curve of the above graph from D1 back to D.

This study will focus on the possible investments that increase the level of human capital, cultural factors determining the stocks of human capital, and personal characteristics that may affect employer demand for similar levels of human capital, all within the realm of United States immigrants. Controlling for other important wage determinants, it is possible to hypothesize that personal differences among immigrants will have an impact on human capital levels and thus, wages. If human capital theory holds,

immigrants who choose to make investments in human capital will increase their marginal revenue product and therefore earn higher wages. Also according to theory, immigrants coming from more similar societies will be more successful at integrating culturally, making them more adaptable to the labor market and in turn, increasing their wages. Finally, according to the research of Deborah A. Cobb-Clark and traditional discrimination in the United States, the sample of immigrants will be tested to see if it exhibits significant, negative wage differentials for racial minorities and women.

The model constructed in this project will test the following hypotheses... 1) Immigrants that decide to make the traditional investments in human capital such as education and work experience will increase their marginal revenue products and earn higher wages. 2) Immigrants that migrate from more politically, economically and linguistically similar nations will possess higher stocks of human capital in the U.S. labor market and thus earn higher wages. And 3) Immigrants who are racial minorities and female immigrants will experience the "costs" of discriminatory tastes and preferences, and therefore, holding levels of human capital constant, will earn lower wages.

IV. RESEARCH METHOD

In order to test the hypothesis that an immigrant's characteristics contribute to their levels of human capital and consequently, their wages, key terms need to be defined. As mentioned above, wages earned will be used as a measurement for returns on human capital levels. Investments in human capital will be measured in years of education and weeks of work experience. Cultural stocks of human capital are more difficult to measure. Culture itself may be defined a number of different ways, which makes it difficult to quantify. This study uses language, political socialization and experience with economic industrialization to measure culture. Finally, the personal characteristics which may affect the demand for labor will be embodied in race and gender.

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 1993 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. Any person interviewed that did not answer a question, 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 possibility 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 sons and daughters of the person who 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. Even with some faults, the NLSY is still considered a reliable and established database. 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.

The next step is the actual computation of the variables. Since I am testing human capital and the effects of culture on human capital, the dependent variable will be hourly wages earned in the year 1993. The hourly wage was computed by taking the annual earnings in 1993 and dividing them by the product of weeks worked and number of hours worked per week. The dependent variable was computed in this way because the "hours worked" variable in NLSY reduced the sample size significantly. The immigrant's hourly wage will reflect differences in the following independent variables.

The independent variables that reflect the investments in human capital are taken directly from human capital theory and also previous studies. Education (EDUCATE), measured in years of schooling completed, is a consistent 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 contributes to human capital levels. This variable is measured in average number of weeks worked per year, over the last fourteen years. Unfortunately the data did not allow a delineation among different types of work, so the general effect of average weeks worked is assumed to be constant across the entire sample.

The next group of variables are those which will be used to measure differences in culture that may affect an immigrant's ability to assimilate into United States culture. This study takes an institutional approach to culture and measures it through three main characteristics. 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 degree of industrialization in the nation of origin. Political orientation (DEMOCRCY) of the immigrants will be measured through a simple "dummy" variable 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 this dichotomy, because in reality the nations represent a wide scale in terms of the degree 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 takeover, 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 economic experience (INDUSTRY). The (INDUSTRY) variable is computed by taking the percentage of GDP attained through manufacturing in regard to the immigrant's nation of origin. These data were acquired from the *Microsoft* CD-ROM "World Atlas". This variable is intended to show the advantage immigrants receive if their native countries contain similar employment experiences.

The third hypothesis deals with the possibility of employer discrimination, regardless of productivity. This study will follow conventional wisdom and choose race and gender as the avenues through which this difference is manifested. Gender (MALE) is computed as a simple dummy variable equal to 1 if the immigrant is a male and 0 if the immigrant is female. Because we expect the employer preference to be in favor of male immigrants (Cobb-Clark 93), the (MALE) variable is expected to have a positive effect. The racial variables were computed a bit differently. Because of the ambiguity that occurs in the instances of different races of immigrants from different countries, this variable could not be measured according to the immigrant's nation of origin. Instead the sample was broken down into four basic racial groups, Asian, Black, Hispanic and White. Any immigrant not belonging to one of these four groups was not included in the analysis[1]. The NLSY asks the interviewers to classify the subjects according to race and these classifications were used as the race measurement in this study. The three other race variables, (ASIAN), assigning a 1 to all Asian immigrants, (LATIN), assigning a 1 to all

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[1]Only twelve immigrants were classified outside these four racial groups so it did not alter the sample significantly by dropping them entirely.

Hispanic immigrants and (BLACK), assigning a 1 to all Black immigrants will all be compared to the White group of immigrants.

Other variables that affect wages but are not part of human capital theory are used as controls in this study. Whether a person lives in an urban or rural setting (URBAN), is an important control because of the usually inflated wages and cost of living in urban areas. (URBAN) was measured as a dummy variable assigning a 1 to all immigrants residing in an urban area and a 0 to those residing in rural areas. Another important control is the number of years spent in the United States (USYEARS). This control is included because as immigrants spend more time in the United States, the cultural effects that I am trying to capture would eventually start to deteriorate (Ehrenberg 94). Therefore by incorporating their "length of stay" the effects of time and cultural divergence can be eliminated. This variable is simply computed by taking 1993, which is the year the wage data is compiled, and subtracting the year in which the immigrant entered the United States. 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 higher wages (Daneshvary 1993). Since the dependent variable of wages is not measured in real terms the differences in nominal wages throughout different areas of the country are important to control for. In order to measure the immigrant's residential location, the United States 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 (SOUTH) because the study done by Nasser Daneshvary (1993) showed the (SOUTH) to display the lowest nominal wages for immigrants. The other three regions are set up as dummy variables and results are compared to the omitted group. Thus we can expect the three other variables (NEAST), (NCENTRAL), and (WEST), all to display positive coefficients. It is important to note that an important determinant of wages is absent from the model.

The data were extracted off of the NLSY CD and fed into the Statistical Package for the Social Sciences (SPSS). The program was written to construct each variable as described above. With the variables in place the next phase of the project was the statistical analysis. An ordinary least squares (OLS) multiple regression was used. The dependent variable, hourly wage, was logged for a number of reasons. First, the log-linear function is used extensively by George Borjas (1994) and Barry Chiswick (1978) and is often used in human capital studies. Secondly, the log-linear function is the equation that gave my data set the best fitting line[2]. The importance of using a log-linear model is that the relationships between the independent and the dependent variables are interpreted differently. Simply put, the coefficients achieved by running the regression now reflect a percentage change in the dependent variable as opposed to a nominal change.

Equation 1 summarizes my empirical model...

$$(LN)WAGE = a + b1\ USYEARS + b2\ URBAN + b3\ NEAST + b4\ NCENTRAL + b5\ WEST + b6\ EDUCATE + b7\ WORKEXP + b8\ ENGLISH + b9\ DEMOCRCY + b10\ INDUSTRY + b11\ MALE + b12\ ASIAN + b13\ BLACK + b14\ LATIN$$

The expectations of this model are straight forward. The control variables (URBAN) and (USYEARS) are viewed as positively affecting hourly wage thus, they should obtain positive coefficients. The three regions included in the model should all reflect higher wages than the South with the (NEAST) most likely exhibiting the largest coefficient (Daneshvary 93). Average weeks worked and years of education are investments in human capital, therefore, hourly wage is hypothesized to be positively

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[2]A straight line regression was used in my previous research and a linear-log model was also attempted, neither producing a better fitting regression line.

affected by (WORKEXP) and (EDUCATE). The independent variables of DEMOCRCY, ENGLISH and INDUSTRY are set up such that, according to theory, they too should reflect increases in stocks of immigrant human capital and therefore show positive coefficients.

All of the information needed to separate the nations into the institutional categories was taken from the CD ROM encyclopedia *Encarta '95*. Also, a list of all the nations and how they were categorized for each cultural variable can be found in appendix A.

V RESULTS

Before the analysis of the regression results, it might be useful to look more closely at the sample of 367 immigrants in terms of simple descriptive statistics. Figure:1 displays the ethnic makeup of the sample as identified by the NLSY interviewers.

Figure: 1

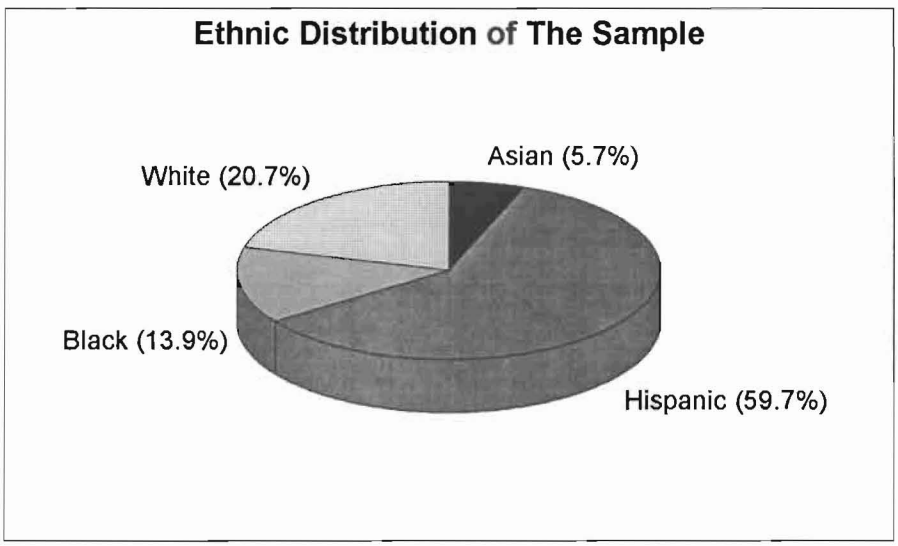

Figure:2 shows the mean hourly wage of each of those ethnic groups.

Figure: 2

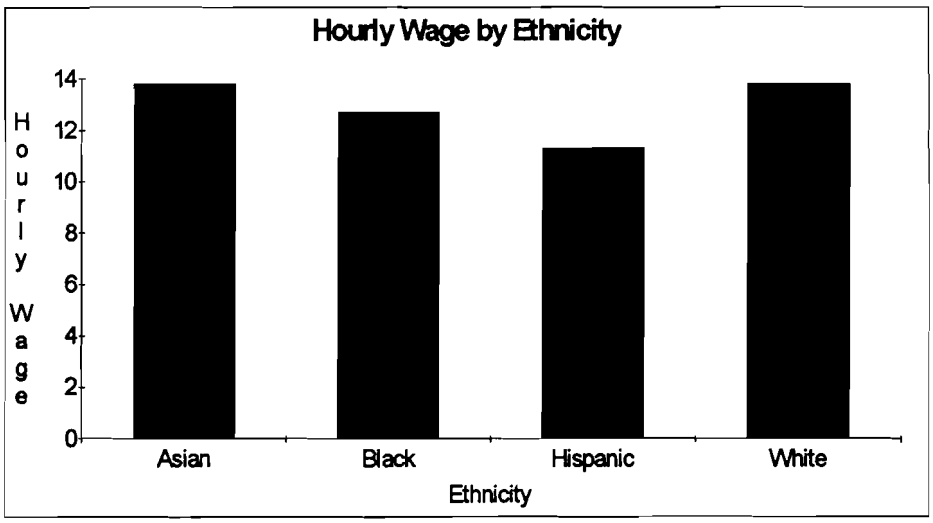

Figure:3 shows the mean hourly wages for immigrants as they are put into the dichotomies of language and political socialization and Figure:4 displays the mean hourly wages in the three measured regions of the United States and the number of immigrants within the sample that reside in those regions.

Figure:3

Characteristic of Home Nation	Mean Hourly Wage
Democratic	$11.35
Non-Democratic	$13.88
English Speaking	$13.76
Non-English Speaking	$11.70

Figure: 4

Region	Number	Avg. Hourly Wage
NorthEast	95	$14.30
NorthCentral	43	$12.20
West	134	$11.35
South	95	$10.55

Figure:1 shows the large number of Hispanics in the sample of immigrants. This is not viewed as a detriment to the study because just as Irish and German immigrants dominated the entry into the United States in the late nineteenth century, and Eastern Europeans dominated the immigrant pool during the early twentieth century, Mexican and Latin American immigrants are the largest group migrating to the United States today. The data in figure:2 seems to initially support the hypothesis that Black, Hispanic and Asian immigrants may face reduced demand as compared to White immigrants. Although the Asian group maintains roughly the same average wage as the White immigrant group, the mean Hispanic and Black wages fall well below that level ($13.80).

Figure:3 portrays the average hourly wages for two important cultural variables. Interestingly, the group of immigrants from non-democratic nations exhibit a higher average wage than those immigrants coming from democratic nations. On the other hand, consistent with the cultural hypothesis, immigrants from English speaking nations earn more, on average, than immigrants from non-English speaking nations. Finally, Figure:4 allows us to get a feel for where the sample of immigrants is located and the average hourly wages earned in those areas. Consistent with the ethnic make-up of the sample, a large number of immigrants reside in the Western portion of the country. Also, as expected, it seems as though the northeastern part of the United States exhibits slightly inflated wages.

With these general descriptions about the sample of 367 immigrants in hand, I could then run the OLS regression and test the effects of the independent variables, controlling for all the other variables included in the model. Figure:5 displays the regression results[3]...

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[3] This being a cross-sectional study, the results were tested for heteroschedasticity and the tests concluded that a problem is likely. Unfortunately, due to time and equipment constraints a cure was not achievable. Therefore I acknowledge that the problem of unequal variances may exist.

Figure:5

Variable	Coefficient	T - Statistic	Exp. Sign	
USYEARS	0.001	0.211	+	
URBAN	0.089	0.511	+	
NEAST	0.207	2.107	+	**
WEST	0.109	1.323	+	
NCENTRAL	0.001	0.007	+	
EDUCATE	0.083	7.217	+	***
WORKEXP	0.011	4.184	+	***
DEMOCRCY	0.028	0.355	+	
ENGLISH	-0.084	-0.689	+	
INDUSTRY	-0.001	-0.343	+	
MALE	0.158	2.476	+	**
ASIAN	0.183	1.201	-	
BLACK	-0.041	-0.297	-	
LATIN	0.004	0.043	-	

n=367 * significant to the .1 level r-square =.238
** significant to the .05 level
*** significant to the .01 level

The regression accounted for nearly twenty-one percent of the variance in hourly wages (the adjusted r-square is equal to .2078)[4]. Because hourly wage was the dependent variable, this is an adequate r square statistic. Often times wages are determined by factors like hard work or aptitude within a certain field of work. Because these factors are difficult to quantify, capturing the entire fluctuation of wages in an empirical model is outside the realm of possibility. In Figure:5 the variables are broken up into groups. The first group of variables are the controls, consisting of (USYEARS), (URBAN) and the three regional variables. All of the controls were expected to have a positive effect on hourly wage and all achieved positive coefficients, however only one (NEAST), was significant. Surprisingly, neither the number of years already spent in the United States, nor the residency in an urban area had a significant effect on the hourly wages of the

[4] A step-wise approach was attempted by eliminating those variables with very low t-statistics, however, it did not significantly alter the adjusted r square so all of the original variables were left in the final regresion results.

immigrant sample. In regard to the geographical variables, both the western and northcentral areas of the country exhibited insignificant differences from the omitted Southern region. This model does however, support the notion that wages are inflated in the Northeast. Holding all of the other variables constant, we can predict that an immigrant living in the Northeastern part of the United States will earn approximately 21% more than an immigrant residing in the Southern United States.

The next group of variables consists of (EDUCATE) and (WORKEXP). These two variables are used to test my first hypothesis that investments in human capital, on the part of United States immigrants, will increase their marginal revenue product and thus, increase their wages. The results overwhelmingly support this hypothesis. Education was significant to the .001 level and the coefficient indicates that completing an extra year of education will increase an immigrant's hourly wage by 8%. Work experience was also significant at the highest level. According to this sample an increase in the average number of weeks worked per year will increase hourly wage but only by 1%. In other words, if an immigrant has an average of 10 more weeks of work experience, per year, then that immigrant can expect a return of over 10% in his or her hourly wage. The model results confirm my first hypothesis.

The third group of variables listed in Figure:5 are those that measure the culture of the immigrants, derived from the characteristics of their home nations. The second hypothesis of this study stated that immigrants from more similar cultural backgrounds, politically, economically and linguistically, would have an easier time assimilating into the United States labor market and therefore, earn higher wages. To test this hypothesis, (DEMOCRCY), (INDUSTRY) and (ENGLISH) were the variables regressed against hourly wage. After accounting for all other variables, the effect of coming from a democratic nation had a positive but insignificant effect. The other two cultural variables were not only insignificant but also resulted in negative coefficients, the opposite of what

was expected. This model rejects the second hypothesis that cultural experiences make a positive difference in the hourly wages earned by immigrants.

The fourth and final group of variables tests the third hypothesis that, with all other things held constant, employers of immigrants may discriminate against certain workers and lower the demand and thus the hourly wages of ethnic minorities and women. Interestingly, when compared to a group of white immigrants, both the Asian and the Hispanic immigrants earned higher wages. However this unexpected positive relationship was insignificant in both cases. The group of Black immigrants did achieve the expected negative sign when compared to the White immigrants but this relationship was insignificant also. Gender is a different story altogether. Not only was the (MALE) variable positive, but it was significant to the .05 level. According to this study, holding wage controls, education, work experience and cultural background constant, being male increases immigrant wages by nearly 16%. As a result the third hypothesis is rejected when looking at ethnicity and supported when looking at gender[5].

Comparing these results with previous 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) and (Bailey 1987). Also, the results of the regional control used supports previous efforts in the area (Daneshvary 1993). The concept of "ethnic capital" (Borjas 1994) was not supported by my model. Finally, in terms of finding a significant wage differential according to gender, the work of Deborah A. Cobb-Clark (1993) was supported.

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[5] One of the original intentions of this study was to run an interactive regression to see if education and work experience had different effects on different cultures, ethnicities and gender. This regression was run and showed no differential in the impact of the traditional investments in human capital achieving an r square of .107 and only one significant variable (MALE).

VI CONCLUSIONS

In conclusion, this study supports traditional human capital theory in that investments immigrants make towards their own productivity are important factors of the wages they earn once they reach the United States. As noted before, the second hypothesis dealing with "ethnic capital" was not confirmed in my sample. Apparently, where the immigrant comes from makes no difference in the wages they earn once they begin to participate in the United States labor market. One aspect of immigration that may be at the center of this finding 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 the motivation behind immigration plays an important role in the wages they receive when they reach the United States. Unfortunately I was unable to quantify this difference for the purposes of this study. Even though, unexpectedly, the cultural differences were not found to affect the stocks of human capital inherent in immigrants, the results are still positive. Proving that wages do not fluctuate with differences in where a person comes from, is a testament to the acceptance United States society generally exhibits when it comes to immigration.

Finally, the results concerning the third hypothesis are difficult to interpret. Because of the many factors that account for immigrant wage differentials, it is impossible to decisively conclude whether or not discrimination among immigrants exists in the labor market. However, in this sample, race by itself was not a contributing factor but gender was. This result indicates that if there is in fact a problem of discrimination, it is more prevalent along gender lines as opposed to ethnic ones.

In terms of policy implications these findings would seem to suggest that any quotas or limitations on immigrants, on the basis of where they come from, or according

to ethnic or racial differences are unfounded and unnecessary. If the policy makers within government want to increase the productivity of the population that enters the country and ensure "successful" economic integration, they should do so according to the probability of human capital investments being made on the part of individual immigrants. The debate that currently rages over whether or not to restrict immigration is likely to continue indefinitely. However, according to this study, a common ground can be reached and the productivity of the American work force can be optimized if efforts are made to increase individual immigrants' levels of human capital, either before or after they arrive.

The amount of research dealing with immigration has increased dramatically over the past decade and is likely to continue. For reasons mentioned earlier, studies that use immigrant wages as the dependent variable undoubtedly face certain constraints from the beginning. However models like the one presented in this study can be improved by accounting for different motivations behind immigration as well as specific skills acquired throughout previous work experience. Finally, research in the area of immigration is headed in the direction of ethnic and racial differences (Borjas 1994) yet, this study seems to suggest that focusing on gender roles within immigration might be a more appropriate avenue to take.

APPENDIX A

COUNTRY	REGION	ENGLISH	DEMOCRACY	INDUSTRY
Argentina	S/C America	no	no	30
Bahamas	Islands	yes	yes	15
Barbedos	Islands	yes	yes	14
Belgium	Europe	no	no	30
Bermuda	Islands	yes	yes	25
Bolivia	S/C America	no	yes	29
Brazil	S/C America	no	yes	39
Cambodia	Asia	no	no	21
Canada	Europe	yes	yes	34
Quebec	Europe	no	yes	36
Chile	S/C America	no	no	21
Columbia	S/C America	no	yes	23
Costa Rica	S/C America	no	yes	45
Cuba	Islands	no	no	24
Cyprus	Mid East/Africa	no	no	20
Dominican Rep.	Islands	no	yes	40
Ecuador	S/C America	no	yes	22
El Salvador	S/C America	no	no	26
England	Europe	yes	yes	52
France	Europe	no	yes	49
Fr. Guiana	S/C America	no	no	21
Germany	Europe	no	yes	22
Greece	Europe	no	no	18
Guatamala	S/C America	no	no	10
Guinea Bisseau	Mid East/Africa	no	no	11
Guyana	S/C America	no	no	28
Haiti	Islands	no	no	25
Honduras	S/C America	no	no	10
Hong Kong	Asia	no	no	20
India	Asia	yes	yes	35
Iraq	Mid East/Africa	no	no	25
Israel	Mid East/Africa	no	yes	30
Italy	Europe	no	yes	45
Jamaica	Islands	yes	yes	11
Japan	Asia	no	yes	22
Korea	Asia	no	no	28
Lebanon	Mid East/Africa	no	no	20
Libya	Mid East/Africa	no	no	25
Mexico	Mexico	no	yes	25
Morroco	Mid East/Africa	no	no	9
Netherlands	Europe	no	yes	9
Nicaragua	S/C America	no	no	16
Nigeria	Mid East/Africa	yes	no	35
Panama	S/C America	no	no	24
Paraguay	S/C America	no	no	17
Phillipines	Asia	yes	yes	40
Peru	S/C America	no	no	27
Poland	Europe	no	no	40
Portugal	Europe	no	yes	14
Scandanavia	Europe	no	yes	22
South Africa	Mid East/Africa	yes	no	23

Spain	Europe	yes	yes	31
Surinam	S/C America	no	no	25
Switzerland	Europe	no	yes	11
Taiwan	Asia	no	no	40
Thailand	Asia	no	no	12
Togo	Mid East/Africa	no	no	25
Trinidad	Islands	yes	yes	11
Turkey	Mid East/Africa	no	no	40
Uraguay	S/C America	no	no	12
Venezuela	S/C America	no	yes	25
Vietnam	Asia	no	no	25
Virgin Islands	Islands	yes	no	30
Yugoslavia	Europe	no	no	14
Carribbean	Islands	yes	no	13
Pacific Islands	Asia	no	no	15

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