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Wage Differentials for Immigrant Women in the U.S.

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Wage Differentials for Immigrant Women in the United States: The Presence of Discrimination based on the Interaction of Ethnicity and Gender.

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Proposal

Literature states that the United States of America is one of only a handful of nations in which immigrant women outnumber immigrant men. Yet, there has been little systematic research on the work experiences of these women. My research will aim at providing some insight into this previously neglected dimension of the immigration phenomenon by estimating wage gaps between immigrant women from various ethnicities as compared to other groups. The theoretical framework for my study is based on Oaxaca's wage decomposition technique, according to which wage differentials may be decomposed into the effects of discrimination and the effects of differences in individual characteristics, such as education and work experience. I will hypothesize that discrimination does exist, causing female immigrants to earn less than native females, immigrant males, and native males because of discrimination based on gender and ethnic group.

Wage Differentials for Immigrant Women in the United States: The Heightened Effect of Gender and Ethnic Interaction.

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Abstract:

The United States is one of only a handful of nations in which immigrant women outnumber immigrant men. These women come from increasingly diverse regions, thereby bringing considerably different skills to the U.S. workforce. However, the question of how gender and ethnicity interact with each other to affect the economic performance of female immigrants remains especially understudied. Thus, this paper aims at providing some insight into this formerly neglected dimension of female immigrant performance. It examines the sources of wage differentials between immigrant females, and other groups in the U.S. labor force, paying particular attention to earnings inequalities created by the interaction of gender and ethnicity. OLS regressions are used to carry out the analysis. A random sample of 100,000 immigrants and 50,000 natives is drawn from the 5% 2000 IPUMS data set. Their salary and wage income is regressed on several variables accounting for differences in human capital, gender and nationality, including interactions between gender and ethnicity. The results show that females and immigrants have relatively low wages because of their sex and country of birth. In addition, interactions between gender and ethnicity are found to be significant determinants of wages.

I. Introduction

Literature states that "the United States is one of only a handful of nations in which immigrant women outnumber immigrant men" (Vernez, 1999). Over time, these women have come from increasingly diverse regions such as North America, Latin America, Asia, Africa and the Middle East (Vernez, 1999). Clearly then, immigrant women have the potential to make a significant contribution to the U.S. labor force, not only in number, but also in ethnic diversity. Yet, there has been little systematic research on the work experiences of these women. Most past studies have focused on male immigrants, even though females are more likely to face cultural and social barriers in the U.S. labor force (Vernez, 1999). Even amongst the few studies that have focused on women, only a limited number have examined the existence of an amplified negative effect caused by the noteworthy combination of gender and ethnicity. Therefore, this paper aims at expanding the previous literature by providing some insight into the formerly neglected dimension of female immigrant performance as it relates to pay inequities based on sex and nationality.

The purpose of this paper is to examine the sources of the wage differentials between immigrant females, immigrant males, native females and native males in the U.S. labor force, paying particular attention to earnings inequalities created by the interaction of gender and ethnicity. Such research will hopefully suggest directions for policy changes aimed at reducing income disparities across immigrant and native groups.

The significance of performing this study is made obvious by the existence of substantial earnings inequalities between different genders and ethnic groups. Table 1 emphasizes the presence of such wage gaps. For a more detailed version of the table, refer to appendix A.

Table 1: Total Money Earnings of Year-Round Full-Time Workers by Sex and World Region of Birth: March 2002

SEX AND MONEY EARNINGS 1/ 2/			WORLD REGION OF BIRTH			
	NATIVE	FOREIGN BORN	EUROPE	ASIA	LATIN AMERICA	OTHER AREAS
	Percent	Percent	Percent	Percent	Percent	Percent
TOTAL with earnings 3/						
$1 to $34,999	49.40	63.65	45.00	45.90	78.50	53.50
$35000 or more	50.60	36.35	55.00	54.10	21.50	46.50
MALES with earnings 3/						
$1 to $34,999	40.55	59.80	35.80	38.55	76.10	47.10
$35000 or more	59.75	40.20	64.20	61.55	23.90	52.90
FEMALES with earnings 3/						
$1 to $34,999	61.55	70.50	59.15	56.40	83.70	64.10
$35000 or more	38.55	29.50	40.85	43.60	16.30	34.90

Notes:

1/ The majority of those born in 'Latin America' are from Mexico. Those born in 'Other Areas' are from Africa, Oceania, Bermuda and Canada.

2/ Age 15 years and over.

3/ Earnings for previous calendar year.

4/ Sample Size = 85,835

SOURCE: U.S. Census Bureau, Current Population Survey, March 2002

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Note the dissimilar concentrations across the groups. The highest percentages of all natives and native males are found in the higher income group, whereas the highest percentages of all foreign-born workers and foreign-born males are found in the lower income group. On the other hand, both native and foreign-born females are most highly clustered in the lower income group. Further, there are noteworthy differences even among the foreign-born workers. Latin American workers are most highly concentrated in the lower income bracket, but Asian workers are found mostly in the higher income bracket. Clearly then, it is worth our time to study the impact of birth place, gender, and ethnicity on economic performance.

The paper will proceed as follows. Section II discusses the theoretical framework which is based on human capital theory. It also reviews the most important literature on female immigration, race-based earnings gaps and gender-based earnings gaps. Section III describes the IPUMS data set and explains the regression analyses that are used in the empirical model. Section IV presents the regression results. Finally, Section V discusses policy implications and conclusions.

II. Theory and Literature Review

Human capital theory states that as long as all firms are alike and all workers are equally productive, and both are able to freely enter and exit the marketplace, there should be a single wage in the economy (Borjas, 2000). However, table 1 shows significant earning differentials across natives and immigrants by gender and ethnicity. In the absence of wage discrimination, such pay inequities should be explained by differences in worker characteristics (Borjas, 2000). In this paper, worker characteristics are defined in terms of human capital, gender and ethnicity.

Each person brings a unique set of abilities and acquired skills, known as his or her human capital, to the labor force. Most of these skills are developed through school and formal and informal on-the-job training programs. Developing such expertise often requires people to accept low earnings at the times that they are increasing their investments in human capital. However, additions to human capital stock are expected to improve economic fortunes in the future due to the returns received on the higher levels of human capital. Workers choose human capital investments that maximize their earning potential. Therefore, educational and training decisions have a significant impact on income (Borjas, 2000).

These decisions differ on the basis of gender and ethnicity because women and non-whites may come to the labor market with different tastes and abilities than white men. Differences in tastes might mean, for instance, that one group has a greater tolerance for an unpleasant, unhealthy, or dangerous environment than others (Blau, Ferber and Winkler, 2002). An example of differences in ability would be that women tend to be physically weaker than men in general. Social expectations about such differences may result in the channeling of women and non-whites into certain occupations or salary groups. Therefore, gender and ethnicity are important determinants of wage rates as well. Hence, we may conclude that earnings depend on human capital, gender, and ethnicity.

The question of human capital is commonly addressed by considering formal schooling and on-the-job training (Blau, Ferber and Winkler, 2002). Earnings are expected to rise with additional education because of the productivity-enhancing effects of education. Schooling allows one to gain a variety of skills and knowledge that would potentially be useful on the job, such as reasoning ability, writing skills, time management, dependability etc. Further, education may act as a screening device for employers, allowing them to distinguish more productive applicants from less productive ones (Blau, Ferber and Winkler, 2002). Human capital theory also notes, however, that significant productivity increases could be gained via important work skills acquired while on the job. Training could include formal programs or informal instruction which enables job proficiency through the trial and error method, or both (Blau, Ferber and Winkler, 2002). Any of these types of training would augment worker productivity and thus cause an earnings increase (Blau, Ferber and Winkler, 2002). Educational attainment and labor market experience (often used as a measure of training acquired)

differ significantly across gender, ethnicity and source country. Therefore, they may help in explaining a significant portion of the wage gap.

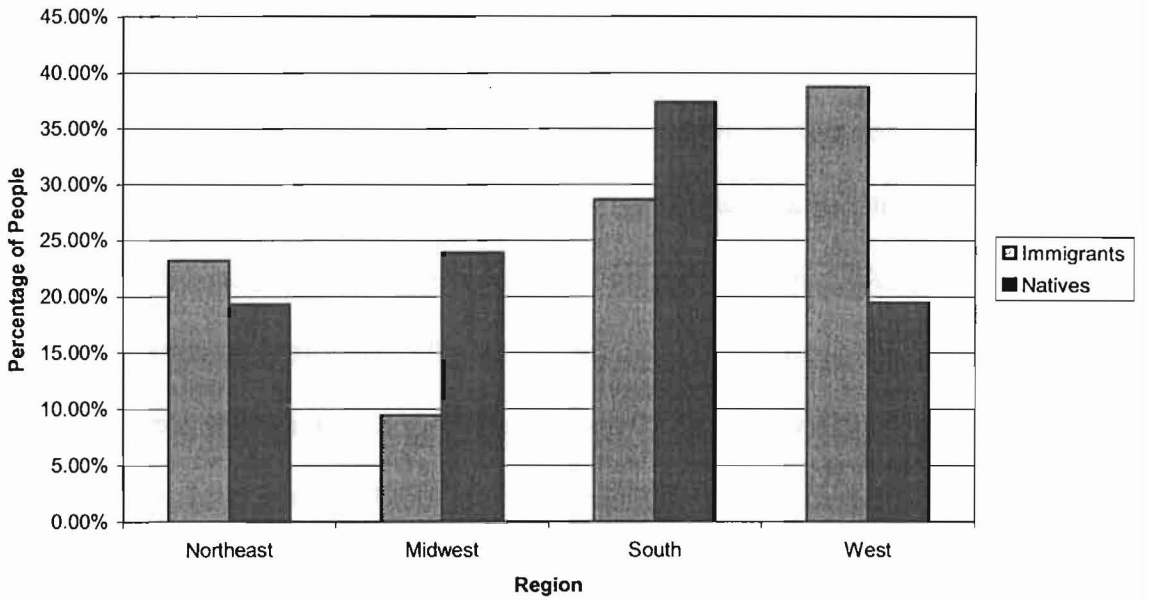
Another important variable is language proficiency. In the U.S., there is a substantial payoff to being able to speak and write English fluently (Schoeni, Assimilation, 1998). It opens up many more opportunities, because bilingual immigrants can look for jobs both inside and outside their ethnic enclave. English proficiency could also serve as a signal of a more able worker (Borjas, 1999).

Other common variables applied in studying human capital's contribution to immigrant performance include years since immigration and age at the time of arrival in the host country. Immigrants who arrive early obtain more skills that are directly related to the U.S. job market, and are therefore more productive in this country than later arrivals. Their age at arrival determines the amount of U.S. specific schooling that they were able to obtain. Additionally, the coefficients of these variables have served as measures of economic assimilation (Nielsen et al., 2003). Theories of assimilation claim that immigrant and native wages tend to converge over time. An initial difference is caused by the fact that newly arrived immigrants are typically less productive, but as time passes, they acquire language proficiency, cultural qualifications and other more general human capital qualifications, which should enable them to catch up to natives. Therefore, it is important to disentangle the assimilation effect from what could be considered ethnic discrimination by including these variables in the study (Nielsen et al., 2003).

Regional differences serve as important control variables as well. They are captured by the National Compensation Survey (1999) which collects wage and salary data for about 450 occupations throughout the country. This survey has found generally higher earnings on the Atlantic and Pacific coasts than in the middle of the country.

Since wages often reflect working conditions, regional differences in payment imply important geographic dissimilarities in average pay. Daneshvary's (1993) studies found that immigrants were more likely to reside in larger metropolitan areas in the North eastern, Southern and Western parts of the U.S., and less likely to reside in North central (Midwestern) part of the country. They were also more geographically concentrated in general than natives because they tended to locate in areas with higher numbers of fellow countrymen. Figure 1 describes these differences.

Figure 1 - Immigrant and Native Concentration Across Regions: 2000



SOURCE: Authors own calculations based on IPUMS data

Further, the study found that immigrants locating in the northeast tended to receive higher wages, whereas those in the south received lower wages. Thus, regional differences may contribute significantly to the existence of wage differentials.

Significant female-specific factors include spouses' wages and fertility. An increase in the husband's wage could either have an income effect by decreasing the probability that a woman chooses to work (assuming that the wife's leisure time is a

normal good), or have a substitution effect by increasing the husband's price of time and making it more efficient for the family to substitute the wife's time for the husband's time in household production (Schoeni, Assimilation, 1998). Both effects result in a decrease in the wife's labor force participation and therefore, reduce overall female earnings.

Fertility, or number of children born, could also affect earnings (Schoeni, Outcomes, 1998). Traditionally, females have been given the responsibility of child rearing. Hence, higher numbers of children could require mothers to spend more time at home, therefore reducing their ability to acquire additional human capital and participate in the labor force. Employers could thus conceivably assume that women from larger families would be less productive. Clearly then, fertility would have a significant effect on female earnings. This is especially important for immigrant women from certain regions, because they tend to have larger families. The effect may also be greater in the case of families with younger children.

Ethnicity has been addressed above in terms of human capital and regional differences. However, that is not sufficient. Immigrants from different countries not only arrive with distinct levels of human capital, skills and abilities, but also have different political and cultural backgrounds which probably affect the rate at which they advance in the U.S. economy (Schoeni, McCarthy and Vernez, 1996). Therefore, it would be helpful to incorporate groupings by country of birth in order to explain wage differentials across ethnicities. Schoeni, McCarthy and Vernez grouped countries on various pertinent criteria. They required each group to contain a significant share of the immigrant population; countries that were geographically close to each other; and

individuals with common backgrounds and experiences (e.g. – language) that would lead to similar experiences in the U.S. workforce. In doing so, they formed nine groups:

1. Mexico
2. Japan, Korea and China
3. Central America
4. Philippines
5. Europe
6. Middle East and all other Asian countries not listed
7. Africa, Caribbean, South America, and Oceania
8. Indochina and Vietnam
9. United Kingdom and Canada

Similar groupings would help to account for varying worker characteristics across countries in my paper as well.

Ethnicity also affects the decision to participate in the labor force. This is especially important for women of color, who vary greatly in their participation rates. For instance, African American and Asian American women have higher participation rates than those of white and Latina women. Different groups of women of color differ by education, immigration status, and family structure, all of which shape differences in their workplace status (Malveaux, 1999). Therefore, the study should include non-working women and immigrants.

The variables discussed above provide some basis for the existence of wage differentials between natives and immigrants. However, many past researchers controlling for similar variables have continued to find inequalities between immigrants and natives. Such disparities are often attributed to societal and labor market discrimination.

Based on the above discussion, this paper will hypothesize the following:

> After controlling for human capital and region of residence, immigrant women suffer a negative triple effect compared to native men. This triple disadvantage is a combination of a "gender effect", an "ethnicity effect", and an amplification of those effects due to an "interaction effect" between gender and ethnicity.

Hourly Wage = *f*(gender, country of birth, gender*ethnicity, human capital control variables)

There is little known research on the interaction variables which test the presence of a more dramatic negative effect for immigrant females from certain ethnicities. Therefore, the effects of those variables should be particularly interesting. The question of whether or not inequalities can truly be attributed to discrimination is beyond the scope of this paper, but it would serve as an interesting avenue for future research.

III. Data Set and Empirical Model

The proposed hypothesis is tested by using a standard human capital equation with additional variables to account for gender and ethnicity. Following the example of Schoeni (Outcomes, 1998), this paper utilizes the 2000 Integrated Public Use Micro Series created by Ruggles and Sobek at the University of Minnesota to create estimations. The data set provides users with extensive microdata (Ruggles and Sobek) and serves the purposes of this analysis by enabling examination of the several different factors discussed above.

Data are taken from the 5 percent sample of the 2000 IPUMS data set which provides information on approximately 5,663,214 household and 14,081,466 individuals. A random sample of 100,000 immigrants and 50,000 natives is used for this paper. In order to capture working-age people and account for school leaving and retirement, all analyses are restricted to individuals 25 to 60 years old. An immigrant is defined as a person born in a foreign country. People born abroad to American parents (e.g. – born

while the parent(s) was (were) temporarily stationed abroad) are considered to be U.S. natives.[1]

In keeping with the theory, both working and non-working individuals are included in the sample. This inclusion is especially important for women. Previous literature has found that women's work participation decisions are quite different from men's. Traditional gender roles require working women to balance family and work demands. Therefore, they are more likely to withdraw from the labor market on either a temporary or permanent basis (Chuang and Lee, 2003). Since my purpose is to develop an understanding of income inequalities for the whole female immigrant group, including unemployed women in the study will help to develop a complete understanding of the wage differentials faced by women.

The dependent variable is the natural log of wage per hour (LNHRWG), which is calculated as follows:

$$\frac{\text{total earned income (the nominal pre-tax wage and salary income for each individual)}}{\text{usual hours worked per week*weeks worked in previous year}}$$

If the wage per hour is zero, the natural log of one has been used instead. This is an acceptable method because there is not much difference between a wage of $0 and $1. The logarithmic form allows a nonlinearity into the regression analysis (Woolridge, 2003), and is consistent with human capital theory. Also, it allows coefficients to be interpreted as the percent changes in earnings given a one unit change in the independent variable.

The key independent variables examined include gender, country of birth, interactions between gender and ethnicity, educational attainment, on-the-job training,

[1] These criteria are based on Schoeni's Outcomes.

English language proficiency, years in the U.S., age at the time of arrival, region, income from other family members, and fertility (i.e. - number of children).

Gender is studied as a dummy variable with male = 0, and female = 1.

Ethnicity is measured in terms of country of birth. The IPUMS allowed for a modified version of Schoeni, McCarthy, and Vernez's groupings. It is as follows:

1. Mexico
2. Japan
3. Korea
4. China
5. Central America
6. Philippines
7. Europe
8. Middle East and all other Asian countries not listed
9. Africa
10. Caribbean
11. South America and Oceania
12. Indochina and Vietnam
13. United Kingdom and Canada
14. Indian Sub-continent
15. United States of America

Refer to appendix B for a more detailed listing of the countries included in each group. The primary modifications involve splitting up two of Schoeni's groups into the separate countries Japan, Korea, China, Africa, the Caribbean, and South America and including the Indian Sub-continent and the U.S.A. as separate groupings. The former is justified because it allows for better comparison between immigrants with different backgrounds. The individual inclusion of Indians is acceptable because immigration from this area has grown exponentially since 1965 (IACPA). There were 12715 Indian immigrants to the U.S.A. in the year 2000 (Ruggles and Sobek, 2003). Such a large group of people with distinct values and experiences should be observed separately. Considering the U.S.A. in the country of birth variables allows for the inclusion of natives as a control group. A set of dummy variables are identified by creating mutually exclusive dichotomous

dummy variables with the value of 1 for respondents born in the concerned country, with the U.S. serving as the omitted group.

The interaction terms are created by interacting the gender variable with the fourteen ethnic variables (excluding the U.S.), resulting in the use of fourteen interaction variables. The significance level of the coefficients for these variables is a measure of the interaction effect. In other words, a negative coefficient for (female*country of birth) could be interpreted as follows: being female increases the disadvantage attributed to immigration from a certain country for women. Therefore, if the coefficients for birthplace and female are negative, then a negative coefficient for an interaction variable implies the existence of an amplified negative effect due to the interaction of gender and ethnicity, and results in a triple disadvantage.

Educational attainment is studied using dichotomous dummies. Nine groups have been formed as follows:

1. No education-preschool
2. Grades 1-4
3. Grades 5-8
4. Grade 9
5. Grade 10
6. Grade 11
7. Grade 12
8. 1-3 years of college
9. 4+ years of college

Each group is considered as a separate variable, with a value of 1 if the concerned individual falls into the group and a value of 0 otherwise. The first group is the omitted category.

Labor market experience is measured using a proxy. Several human capital studies use potential work experience to account for this. It involves the approximation of time passed since an individual was last in school. The calculation performed for this paper is as follows:

potential work experience = (age at the time of the survey – years of education)

However, this may result in the inclusion of unemployed people, or the exclusion of work experience gained while a person was in school. Unfortunately data restrictions do not allow for a better proxy of this variable.

English language proficiency is studied in four categories, as per IPUMS groupings. Participants were asked to identify if they spoke English very well, well, not well or not at all. Dichotomous dummy variables are used to identify the different classifications, with the group speaking English very well being omitted.

Years passed since the time of immigration is calculated by subtracting the year of immigration from 2000 (the year data were collected). There are two problems with this method of approximation though. Firstly, it may result in a slight bias because individuals could have traveled abroad during that time, but more specific information is not available. Secondly, although natives have not immigrated to the United States, the data set assumes that they have immigrated at age zero, and thus for the purposes of this variable, actual age of natives is used. However, this may result in underestimation because a native who has spent an equal number of years in the United States as an immigrant is likely to be more culturally qualified than the immigrant by virtue of having been raised by people who are well-assimilated to United States culture. Also, the variable is likely to be highly correlated with potential work experience for natives. Unfortunately, data restrictions do not allow for a better estimation.

The square of years spent in the United States is included in the analysis as well because the effect of years spent in the United States on earnings is likely to fall off with time. The squared term accounts for this non-linearity.

Age at the time of arrival is measured by subtracting years spent in the U.S. from age at the time of the survey. This variable is expected to be inversely related to wages because young immigrants obtain more education in the U.S.A. than older immigrants. Education obtained in the U.S.A. may be more relevant to immigrant economic performance than that obtained in the country of birth because it is conducted in English and focuses on American culture and institutions.

Regional divisions are considered using two variables. The first is a dummy variable for metropolitan status, with residing in a metropolitan area = 1, and 0 = otherwise. The IPUMS does not provide information on geographical areas with a population of less than 100,000, so the residences of a large number of people are classified as unknown. However, most metropolitan areas have populations greater than 100,000. Therefore, it is assumed that unknowns do not live in a metropolitan area. They are given a value of 0, which codes them as not living in a metropolitan area. The second is a set of 3 mutually exclusive dichotomous dummy variables, each assigned to a particular region as follows: 1 if Northeast, 0 otherwise; 1 if South, 0 otherwise; and, 1 if West, 0 otherwise. Midwest has been omitted because immigrant concentration is least in that area.

Income from other family members is used instead of spouses' wages (used in past research) because the IPUMS data set does not have a direct variable to account for spouses' wages. Therefore, this analysis uses total family income minus responder's wage instead. Total family income is defined as the total pre-tax money income earned by the primary family of the household head from all sources. This proxy variable is appropriate because increased family income is likely to affect a woman's decision to work in the same manner that increased spouses' income would.

Fertility is measured in terms of the number of own children in the household, together with dummies for children under the age of 5. The number of own children is considered directly, but dichotomous dummies are used for the number of children under 5, with 0 children under 5 being the omitted group. This allows for the additional effects of having younger children to be taken into consideration. This measure may exclude some children (e.g. – adopted or guardian), but the data set did not permit a better direct estimate. Please note that no individuals in the sample had 6 children under 5, so that variable has not been considered.

The hypothesis is tested with an OLS regression that regresses the natural log of hourly wages (LNHRWG) against a dummy variable for gender, fourteen dummies for country of birth, and fourteen interactions between gender and country of birth. Additionally, the regression includes the numerous human capital variables just described. Table 2 presents the key demographic variables that will be considered. For a more comprehensive list of all variables, including the human capital controls, refer to appendix C. The coefficients listed next to the variables in column 1 will be used for interpretation purposes in the next section.

Table 2 – Key Variable Names, Definitions and Hypothesized Signs

VARIABLE NAME	DEFINITION	HYPOTHESIZED SIGN	OMITTED/COMPARISON GROUP (FOR DUMMY VARIABLES)
DEPENDENT VARIABLE			
Lnhrwg	Natural log of wage per hour	N/A	N/A
KEY VARIABLES			
Female ($ß_2$)	1 if female, 0 otherwise	-	Males
Mex ($ß_3$)	1 if born in Mexico, 0 otherwise	-	Born in the U.S.
Japan ($ß_4$)	1 if born in Japan, 0 otherwise	-	Born in the U.S.
Korea ($ß_5$)	1 if born in Korea, 0 otherwise	-	Born in the U.S.
China ($ß_6$)	1 if born in China, 0 otherwise	-	Born in the U.S.
Cename ($ß_7$)	1 if born in Central America, 0 otherwise	-	Born in the U.S.
Phil ($ß_8$)	1 if born in the Philippines, 0 otherwise	-	Born in the U.S.
Europe ($ß_9$)	1 if born in Europe, 0 otherwise	-	Born in the U.S.
Mideas ($ß_{10}$)	1 if born in the Middle East and all Asian countries not otherwise listed, 0 otherwise	-	Born in the U.S.
Africa ($ß_{11}$)	1 if born in Africa, 0 otherwise	-	Born in the U.S.
Caribb ($ß_{12}$)	1 if born in the Caribbean, 0 otherwise	-	Born in the U.S.
Souame ($ß_{13}$)	1 if born in South America, Oceania or Antarctica, 0 otherwise	-	Born in the U.S.
Indoch ($ß_{14}$)	1 if born in Indochina or Vietnam, 0 otherwise	-	Born in the U.S.
Ukcan ($ß_{15}$)	1 if born in the United Kingdom or Canada, 0 otherwise	-	Born in the U.S.
India ($ß_{16}$)	1 if born in the Indian Sub-Continent, 0 otherwise	-	Born in the U.S.
F.mex ($ß_{17}$)	Female*Mex	-	Female*Born in U.S.
F.japan ($ß_{18}$)	Female*Japan	-	Female*Born in U.S.
F.korea ($ß_{19}$)	Female*Korea	-	Female*Born in U.S.
F.china ($ß_{20}$)	Female*China	-	Female*Born in U.S.
F.cenam ($ß_{21}$)	Female*Cename	-	Female*Born in U.S.
F.phil ($ß_{22}$)	Female*Phil	-	Female*Born in U.S.
F.europ ($ß_{23}$)	Female*Europe	-	Female*Born in U.S.
F.midea ($ß_{24}$)	Female*Mideast	-	Female*Born in U.S.
F.afric ($ß_{25}$)	Female*Africa	-	Female*Born in U.S.
F.carib ($ß_{26}$)	Female*Caribb	-	Female*Born in U.S.
F.souam ($ß_{27}$)	Female*Souame	-	Female*Born in U.S.
F.indoc ($ß_{28}$)	Female*Indoch	-	Female*Born in U.S.
F.ukcan ($ß_{29}$)	Female*Ukcan	-	Female*Born in U.S.
F.india ($ß_{30}$)	Female*India	-	Female*Born in U.S.

IV. Results

The key results of the regression are summarized in Table 3. Appendix D provides a more detailed listing of all the results.

Table 3 – Key Results (t-statistics are in parentheses)

DEPENDENT VARIABLE = Lnhrwg				
VARIABLE NAME	RESULTS – MODEL 1 (Demographics only)	RESULTS – MODEL 2 (adding human capital control variables)	HYPOTHESIZED SIGN	OMITTED/COMPARISON GROUP (FOR DUMMY VARIABLES)
Constant	2.305 (289.786)***	1.453 (53.314)***	N/A	N/A
Adjusted R^2	0.083	0.180	N/A	N/A
KEY VARIABLES				
Female ($ß_2$)	-0.420 (-37.830)***	-0.444 (-42.195)***	-	Males
Mex ($ß_3$)	-0.368 (-28.818)***	0.184 (11.461)***	-	Born in the U.S.
Japan ($ß_4$)	0.314 (6.154)***	0.215 (4.385)***	-	Born in the U.S.
Korea ($ß_5$)	-0.276 (-7.229)***	-0.296 (-7.853)***	-	Born in the U.S.
China ($ß_6$)	0.074 (2.698)***	0.049 (1.734)*	-	Born in the U.S.
Cename ($ß_7$)	-0.274 (-11.643)***	0.163 (6.658)***	-	Born in the U.S.
Phil ($ß_8$)	0.200 (6.740)***	0.134 (4.485)***	-	Born in the U.S.
Europe ($ß_9$)	0.072 (4.084)***	0.070 (3.790)***	-	Born in the U.S.
Mideas ($ß_{10}$)	-0.001 (-0.054)	-0.090 (-2.886)***	-	Born in the U.S.
Africa ($ß_{11}$)	-0.011 (-0.351)	-0.080 (-2.453)**	-	Born in the U.S.
Caribb ($ß_{12}$)	-0.283 (-15.774)***	-0.049 (-2.591)**	-	Born in the U.S.
Souame ($ß_{13}$)	-0.123 (-5.285)***	0.021 (0.880)	-	Born in the U.S.
Indoch ($ß_{14}$)	-0.169 (-6.703)***	0.025 (0.999)	-	Born in the U.S.
Ukcan ($ß_{15}$)	0.353 (13.046)***	0.232 (8.678)***	-	Born in the U.S.
India ($ß_{16}$)	0.316 (11.987)***	0.160 (5.893)***	-	Born in the U.S.
F.mex ($ß_{17}$)	-0.386 (-20.756)***	-0.360 (-20.421)***	-	Female*Born in U.S.
F.japan ($ß_{18}$)	-0.646 (-9.697)***	-0.509 (-8.075)***	-	Female*Born in U.S.
F.korea ($ß_{19}$)	-0.195 (-3.890)***	-0.072 (-1.533)	-	Female*Born in U.S.
F.china ($ß_{20}$)	-0.179 (-4.707)***	-0.040 (-1.113)	-	Female*Born in U.S.
F.cenam ($ß_{21}$)	-0.218 (-6.551)***	-0.232 (-7.345)***	-	Female*Born in U.S.
F.phil ($ß_{22}$)	0.129 (3.302)***	0.133 (3.606)***	-	Female*Born in U.S.
F.europ ($ß_{23}$)	-0.219 (-8.876)***	-0.153 (-6.555)***	-	Female*Born in U.S.
F.midea ($ß_{24}$)	-0.472 (-9.730)***	-0.289 (-6.299)***	-	Female*Born in U.S.
F.afric ($ß_{25}$)	-0.041 (-0.839)	0.079 (1.714)**	-	Female*Born in U.S.
F.carib ($ß_{26}$)	0.072 (2.934)***	0.039 (1.673)*	-	Female*Born in U.S.
F.souam ($ß_{27}$)	-0.178 (-5.541)***	-0.129 (-4.231)***	-	Female*Born in U.S.
F.indoc ($ß_{28}$)	-0.083 (-2.356)**	0.040 (1.198)	-	Female*Born in U.S.
F.ukcan ($ß_{29}$)	-0.384 (-10.191)***	-0.279 (-7.824)***	-	Female*Born in U.S.
F.india ($ß_{30}$)	-0.672 (-17.289)***	-0.506 (-13.739)***	-	Female*Born in U.S.

NOTES:

* Significant at the .1 level

** Significant at the .05 level

*** Significant at the .01 level

Model 1 regresses only demographics against LNHRWG, and model 2 regresses those same demographics with the addition of human capital variables against LNHRWG. The complete set of results for model 2, including the human capital controls that have been excluded in table 3, is found in appendix D. The former provides a view of differentials as they are seen in society and serves as ground for comparison, whereas the latter considers the extent to which human capital factors can explain those surface differences. This paper will focus mainly on the results found in model 2, but will refer to model 1 for comparison and interpretation purposes.

Model 1 explains 8.3% and model 2 explains 18% of the variation in LNHRWG. The coefficients of the variables should be interpreted as the percent change in hourly wage, given a one-unit change in the independent variable. In order to test the hypothesis, coefficients must be combined in specific ways. The following example facilitates a better understanding of the joined coefficients:

For model 1, Let:

$$\text{Lnhrwg} = ß_1 + ß_2\,\text{Female} + ß_3\,\text{Mex} + \ldots + ß_{16}\,\text{India} + ß_{17}\,\text{F.Mex} + \ldots + ß_{30}\,\text{F.India} + u$$

Here, *ceteris paribus*, the average salary of a U.S. born male is $ß_1$, and the effect of being a:

U.S. born female = $ß_1 + ß_2$
Male from MEX = $ß_1 + ß_3$
Female from MEX = $ß_1 + ß_2 + ß_3 + ß_{17}$
Male from INDIA = $ß_1 + ß_{16}$
Female from INDIA = $ß_1 + ß_2 + ß_{16} + ß_{30}$

Thus, the:

- Disadvantage faced by native females in the U.S. versus native males is $[(ß_1 + ß_2) - (ß_1)] = ß_2$
- Pay differential for a male from MEX versus native males is $[(ß_1 + ß_3) - (ß_1)] = ß_3$
- Pay differential for a female from MEX versus native males is $[(ß_1 + ß_2 + ß_3 + ß_{17}) - (ß_1)] = ß_2 + ß_3 + ß_{17}$
- Pay differential for a female from MEX versus native females is

$[(\beta_1 + \beta_2 + \beta_3 + \beta_{17}) - (\beta_1 + \beta_2)] = \beta_3 + \beta_{17}$

- Pay differential for a female from MEX versus a male from MEX is
  $[(\beta_1 + \beta_2 + \beta_3 + \beta_{17}) - (\beta_1 + \beta_3)] = \beta_2 + \beta_{17}$
- Pay differential for a male from INDIA versus native males is $[(\beta_1 + \beta_{16}) - (\beta_1)] = \beta_{16}$
- Pay differential for a female from INDIA versus native males is
  $[(\beta_1 + \beta_2 + \beta_{16} + \beta_{30}) - (\beta_1)] = \beta_2 + \beta_{16} + \beta_{30}$
- Pay differential for a female from INDIA versus native females is
  $[(\beta_1 + \beta_2 + \beta_{16} + \beta_{30}) - (\beta_1 + \beta_2)] = \beta_{16} + \beta_{30}$
- Pay differential for a female from INDIA versus a male from INDIA is
  $[(\beta_1 + \beta_2 + \beta_{16} + \beta_{30}) - (\beta_1 + \beta_{16})] = \beta_2 + \beta_{30}$
- Pay differential between a female from MEX and a female from INDIA is
  $[(\beta_1 + \beta_2 + \beta_3 + \beta_{17}) - (\beta_1 + \beta_2 + \beta_{16} + \beta_{30})] = \beta_3 + \beta_{17} + \beta_{16} + \beta_{30}$
- Pay differential between MEX males and INDIA males is
  $[(\beta_1 + \beta_3) - (\beta_1 + \beta_{16})] = \beta_3 + \beta_{16}$

Although the above example is limited to model 1 and considers only natives and two ethnicities, the conceptual framework still holds when we add the remaining 8 ethnic groups and the set of human capital variables for model 2.

The overall results provide very strong support for the triple effect hypothesis and clearly point to the existence of highly significant wage differentials for immigrant women. Individually, the gender effect is strong and constant across groups, but the ethnic and interaction effects are interestingly diverse. Some ethnicities face positive effects, others face negative effects, and still others have statistically insignificant effects. For the control variables though, most signs and magnitudes are as expected, and have high significance levels. Most variables with unexpected signs are not significant. Potential work experience was dropped from the analysis because it was highly correlated to age at the time of immigration, years spent in the United States, and education. Other unpredicted results for control variables are explained in the notes at the end of appendix D.

Using the combined coefficients described above, model 1 finds that superficially, native females in the U.S.A. earn 42% less than native males. However, the human

capital controls employed in model 2 actually add to that differential, resulting in hourly wages for native females to be 44.4% less than that of native males, *ceteris paribus* (refer to table 4). Part of the reason behind the large value of this differential could be the inclusion of unemployed women. Thus, the disadvantage includes not just the difference in earnings, but also the difference in ability to work for pay. As mentioned earlier, women are often restricted in their career choices by familial and cultural ties. To truly understand the implications of this discrepancy, consider the following: if the average man born in the U.S. were to have a nominal income of $30,000 per year, then the average native woman would earn a nominal income of $17,400 per year. If however, after controlling for human capital, a man earns $30,000, then an equally educated and experienced native woman would earn only $16,680, which is even less. Thus, there is seemingly a large and obvious differential between genders, but accounting for human capital proves that even that difference is understated. In other words, women appear to earn less as is, but the results found after considering their human capital levels imply that even the already low average is not a sufficient indicator of the actual disadvantage faced by women. Note that this differential is added into the disadvantage faced by every woman in the U.S.A, regardless of nativity. Significantly, these results are for the year 2000. The popular belief that gender based earnings differences are a thing of the past is therefore, unsubstantiated. The "gender effect" clearly exists, even today.

The ethnicity variables provide interesting results. In model 1, most immigrant females suffer a noteworthy disadvantage against native females, with MEX women facing the worst differential of negative 75.4% (using combined gender, ethnic and interaction coefficients). However, women from AFRICA face no disadvantage, and women from PHIL actually earn 32.9% more than native women. Model 2 though,

presents a markedly different picture (refer to table 4). Even after controlling for human capital, most female immigrants continue to earn less than U.S. native females, but women from INDOCH face no disadvantage, and women from CHINA, PHIL, AFRICA and UKCAN have positive wage advantages. Thus, at least parts of the negative wage differentials are explained away by human capital variables in most cases. In fact, including human capital controls reverses the sign of the differential for CHINA, INDOCH and UKCAN. However, several important gaps remain even in model 2, which implies that something beyond the considered human capital variables is affecting wage rates. These significant differentials for immigrant females versus native females range from a negative 37.96% for female immigrants from MIDEAS to a positive 26.7% for women born in PHIL. In other words, if a U.S. born female were to earn $30,000 per year, then a MIDEAS born woman with equal human capital would earn only $18,612 per year, whereas a PHIL woman in the same situation would receive a considerably different wage of $38,010 per year. Clearly then, the "ethnicity effect" is valid, and future research should focus on determining the source of this effect.

Now we turn our focus to the variables that aim at studying the effect of interactions between gender and ethnicity. Superficially, the interactions are mostly negative, with only two positive and one insignificant coefficient. Human capital controls explain away some amount of the differential in most cases. For instance, the interaction effect for INDIA women decreases from a negative 67.2% in model 1 to a negative 50.6% in model 2. However, most interactions stay negative and significant. PHIL, AFRICA and CARIBB women are the only ones with positive interactions, and KOREA, CHINA and INDOCH are the only insignificant interactions. Interestingly, the interaction for AFRICA is the only insignificant variable in model 1, but it is significant

for model 2. Therefore, even though model 1 shows that being both female and an AFRICA immigrant does not affect the disadvantage faced by that group, AFRICA women actually reduce their disadvantage by 7.97% because of the interaction. Similarly, Korean, Chinese and Indochinese women seem to face additional disadvantages as a result of belonging to both a female group and an immigrant group, but those disadvantages can actually be attributed to differences in human capital levels. However, the remaining eleven groups face large interaction based differentials that are not qualified by human capital. Clearly then, the "interaction effect" does play an important role in determining wages in several cases.

This section presents the results of the above analysis which compares the wages of female immigrants from a certain place of origin to the wages of native females, native males, and male immigrants from the same place of origin. Table 4 allows for easy interpretation of those results by presenting the combined effects of gender, ethnicity and gender and ethnic interaction.

Table 4 – Effects in Percent Wages of Being a Female Immigrant in the U.S.

	COMPARISONS		
ETHNIC GROUP	Female Immigrant vs. Female Native	Female Immigrant vs. Male Immigrant From the Same Country	Female Immigrant vs. Male Native (Triple Effect)
Mex	-17.6% (ß3 + ß17)	-80.4% (ß2 + ß17)	-62.0% (ß2 + ß3 + ß17)
Japan	-29.4% (ß4 + ß18)	-95.3% (ß2 + ß18)	-73.8% (ß2 + ß4 + ß18)
Korea	-36.9% (ß5 + ß19)	-51.7% (ß2 + ß19)	-81.3% (ß2 + ß5 + ß19)
China	0.9% (ß6 + ß20)	-48.4% (ß2 + ß20)	-43.5% (ß2 + ß6 + ß20)
Cename	-6.9% (ß7 + ß21)	-67.6% (ß2 + ß21)	-51.3% (ß2 + ß7 + ß21)
Phil	26.7% (ß8 + ß22)	-31.1% (ß2 + ß22)	-17.7% (ß2 + ß8 + ß22)
Europe	-8.3% (ß9 + ß23)	-59.7% (ß2 + ß23)	-52.7% (ß2 + ß9 + ß23)
Mideas	-38.0% (ß10 + ß24)	-73.3% (ß2 + ß24)	-82.4% (ß2 + ß10 + ß24)
Africa	0.0% (ß11 + ß25)	-36.4% (ß2 + ß25)	-44.4% (ß2 + ß11 + ß25)
Caribb	-1.1% (ß12 + ß26)	-40.5% (ß2 + ß26)	-45.5% (ß2 + ß12 + ß26)
Souame	-10.8% (ß13 + ß27)	-57.3% (ß2 + ß27)	-55.2% (ß2 + ß13 + ß27)
Indoch	6.6% (ß14 + ß28)	-40.4% (ß2 + ß28)	-37.8% (ß2 + ß14 + ß28)
Ukcan	-4.7% (ß15 + ß29)	-72.3% (ß2 + ß29)	-49.1% (ß2 + ß15 + ß29)
India	-34.6% (ß16 + ß30)	-95.0% (ß2 + ß30)	-79.0% (ß2 + ß16 + ß30)

NOTES:
1\ Data is taken from model 2

The table makes it clear that, even after controlling for human capital, all immigrant females suffer a negative effect as compared to male natives (refer to column 3). Note that this effect is the summation of the gender, ethnic and interaction effects. The consequent reduction in their wages is measured by adding the coefficients as explained earlier in this section. So, a typical MIDEAS female immigrant earns 38% less than what the average native U.S. female earns. But, if the U.S. native is male, the female MEX immigrant earns 82% less than what the U.S. male does. However, although the overall wage differential faced by immigrant women versus native men is universally negative as

hypothesized, the three effects that combine to create it are varied. The "gender effect" causes all women to suffer from a 44.4% deduction in wage, but the "ethnic effect" and the "interaction effect" is positive for some groups, insignificant for others, and negative for the rest. The ethnic variation is logical because different countries provide dissimilar backgrounds, experiences and cultural expectations that are likely to affect performance levels in different ways. The deviations in interactions are also reasonable because diverse countries and cultures have varying attitudes towards women getting involved in the work force. Some women may be suppressed more than others. Further study of these variations could result in some interesting findings though.

All the differentials mentioned above include the effects of both income differences and unemployment/labor force non-involvement rates. An interesting question to pursue would be the extent to which unemployment/labor force non-involvement contributes to the disparities. Theoretically, there is an important relationship between gender, ethnicity and labor force status. The following table verifies that work status varies greatly across groups.

Table 5 – Percent of Females Unemployed and/or out of the Labor Force

Country Group	Percent of Females Unemployed and/or out of the Labor Force
Mex	30.9%
Japan	25.0%
Korea	25.8%
China	18.6%
Cename	20.4%
Phil	8.3%
Europe	18.2%
Mideas	30.6%
Africa	16.1%
Caribb	20.6%
Souame	18.4%
Indoch	20.5%
Ukcan	14.2%
India	30.1%
U.S.	13.0%
National Average for females in the U.S.	19.2%
National Average for males in the U.S.	5.9%
Pearson Chi-Square	2325.934***

NOTES:
1\ *** Significant at the .01 level

The Chi-Square statistic proves that the ethnic groups have significantly different unemployment/labor force non-involvement rates. Notice that Filipina women have the lowest percentage. Going back to table 4, we see that Filipina women also face the lowest differential (-17.7%) with respect to native men. On the other hand, Mexican, Japanese, Korean, Middle Eastern and Indian women have the five highest unemployment/labor force non-involvement rates. These same groups also face the five worst differentials as compared to native men. Such patterns point towards an interesting relationship between unemployment/labor force non-involvement rates and wage important source of disparities between groups.

Overall, the results were significant and supportive of the hypothesis. Gender, ethnicity, and interactions between the two clearly make significant contributions to the existence of wage differentials. However, their contributions vary notably from country to country. More detailed exploration of the reasons behind these variations and inequalities will undoubtedly aid our understanding of disparities in earnings.

V. Conclusion

This paper aimed at analyzing the existence of wage gaps between natives and immigrants, paying special attention to ethnicity and gender. The results support the hypothesis that immigrant females face a negative triple effect compared to U.S. natives. Negative gender effects are consistent and present for immigrant women, but ethnic and interaction effects vary from country to country. Among the latter effects, some are negative as expected, others are surprisingly positive, and still others are insignificant.

The results suggest that the U.S. government needs to improve its current policies on providing support to immigrants and females. First, the general disadvantage faced by immigrants and females needs to be addressed. Immigrants and women constitute an increasing share of the U.S. workforce and unequal opportunities and wages may deter them from future participation. Society would thus lose valuable resources (Blau, Ferber and Winkler, 2002). Therefore, government intervention aimed at assuring equal treatment for all individuals in the labor force is justified.

Second, policies oriented towards the idea that all ethnicities have homogenous experiences in the U.S. labor market are clearly misdirected. Ethnic heterogeneity and inter-ethnic differences seem to be the norm, and so employment practices should be

based on those principles instead. The need to move away from the melting pot analogy and towards the tossed salad concept is obvious.

The fact that differentials exist even after controlling for human capital may provide support for social views that discrimination on the basis of gender and ethnicity is still present. Although discrimination is illegal on paper, it may still be practiced. However, the pay gaps could also have resulted from qualitative differences in human capital that could not be measured in this paper. Future research on the subject is needed to provide a more comprehensive understanding of the situation.

Other avenues for future research include studying the contribution of labor force participation and unemployment to the differentials. AS mentioned earlier, such research could help to explain part of the surprisingly large gaps.

A final suggestion for future research would be to study why some females in certain countries do better than their male counterparts whereas others from different countries do not. Developing more insights into these topics may provide the tools needed to create policies that ensure equal rights to all workers.

In general, the experiences of female immigrants are under-studied. The above suggestions provide some directions for increases in this area of immigration theory, but there are several other approaches to be considered as well. Exploring those approaches would undoubtedly result in important contributions to the field of labor economics.

Works Cited

Blau, Francine D., Marianne A. Ferber and Anne E. Winkler. The Economics of Women, Men, and Work. New Jersey: Pearson Education Inc., 2002.

Borjas, George. "The Economics of Immigration." Journal of Economic Literature 32.4 (1994): 1667-1718.

Borjas, George. Heaven's Door. New Jersey: Princeton University Press, 1999.

Borjas, George. Labor Economics. U.S.A.: The McGraw Hill Companies, Inc., 2000.

Borjas, George J. "Self Selection and the Earnings of Immigrants." The American Economic Review 77.4 (1987): 531-553.

Chuang, Hwei-Lin and Hsih-yin Lee. "The Return on Women's Human Capital and the Role of Male Attitudes toward Working Wives: Gender Roles, Work Interruption, and Women's Earnings in Taiwan." American Journal of Economics & Sociology 62.2 (2003): 435-458.

Daneshvary, Nasser. "Earning Differentials between Natives and Immigrants with College Degree." American Economist 37.2 (1993): 46-52.

Ellison, Michael. "Immigrants Needed to Save West From Crisis." Guardian Unlimited 23 November, 2003 <http://www.guardian.co.uk/population/Story/0,2763,184292,00.html>

"Indian American Immigration." India Abroad Center for Political Awareness (IACPA) 21 October 2003 < http://www.iacfpa.org/iaimmig.htm#immig2>

Malveaux, Julianne. "Women of Color in the Labor Market." Quarterly Review of Economics and Finance 39.0 (1999): 663-78.

National Compensation Survey. "Metropolitan Occupational Wages, 1999." U.S. Bureau of Labor Statistics. Washington: U.S. Department of Labor. 22 November 2003 <http://www.bls.gov/opub/mapbook/pdf/section8.pdf>

Nielsen, Helena S., et al. "Qualifications, Discrimination, or Assimilation? An Extended Framework for Analyzing Immigrant Wage Gaps." IZA Discussion Paper no. 365, Sept. 2001. 15 Sept. 2003 <http://www.iza.org/index_html?mainframe=http%3A//www.iza.org/en/webcontent/ProductFunctions/papers_discussions/1005575374/index_html>

Ruggles, Steven and Matthew Sobek et al. Integrated Public Use Microdata Series: Version 3.0. 2003. Minneapolis: Historical Census Projects, University of Minnesota. 23 October 2003 <http://www.ipums.org>

Schoeni, Robert F. "Labor Market Assimilation of Immigrant Women." Industrial & Labor Relations Review 51.3 (1998): 483-505.

Schoeni, Robert. "Labor Market Outcomes of Immigrant Women in the United States: 1970 to 1990." The International Migration Review 32 (1998): 57-77.

Schoeni, Robert F., Kevin F. McCarthy and Georges Vernez. The Mixed Economic Progress of Immigrants. California: RAND, 1996.

Shamsuddin, Abdul F. "The Double-Negative Effect on the Earnings of Foreign-Born Females in Canada." Applied Economics 30.9 (1998): 1187-1202.

U.S. Census Bureau. 2002. U.S. Department of Commerce. 21 October 2003. <http://www.census.gov>

Vernez, George. Immigrant Women in the U.S. Workforce: Who Struggles? Who Succeeds? New York: Lexington Books, 1999.

Woolridge, Jeffery M. Introductory Econometrics. United States of America: Thomson South Western, 2003.

Wright, Richard, and Mark Ellis. "The Ethnic and Gender Division of Labor Compared Among Immigrants to Los Angeles." International Journal of Urban and Regional Research 24.3 (2000): 583-600.

Appendix A – Total Money Earnings of Year-Round Full-Time Workers by Sex and World Region of Birth: March 2002

SEX AND MONEY EARNINGS (Numbers in thousands 1/ 2/)	NATIVE		FOREIGN BORN		WORLD REGION OF BIRTH							
					EUROPE		ASIA		LATIN AMERICA		OTHER AREAS	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
TOTAL with earnings 3/	85,835	100.0	14,516	100.0	1,781	100.0	3,882	100.0	7,667	100.0	1,186	100.0
$1 to $2,499 or less	744	0.9	127	0.9	27	1.5	24	0.6	62	0.8	14	1.2
$2,500 to $4,999	310	0.4	62	0.4	7	0.4	7	0.2	45	0.6	3	0.2
$5,000 to $9,999	1,777	2.1	488	3.4	28	1.6	81	2.1	349	4.5	30	2.5
$10,000 to $14,999	4,798	5.6	1,732	11.9	82	4.6	235	6.1	1,319	17.2	95	8.0
$15,000 to $19,999	7,293	8.5	2,103	14.5	121	6.8	348	9.0	1,511	19.7	124	10.4
$20,000 to $24,999	9,260	10.8	2,025	13.9	192	10.8	387	10.0	1,279	16.7	167	14.0
$25,000 to $34,999	18,226	21.2	2,706	18.6	346	19.5	696	17.9	1,459	19.0	204	17.2
$35,000 to $49,999	18,701	21.8	2,184	15.0	333	18.7	713	18.4	934	12.2	205	17.3
$50,000 to $74,999	14,551	17.0	1,697	11.7	322	18.1	732	18.9	465	6.1	178	15.0
$75,000 and over	10,175	11.9	1,394	9.6	324	18.2	660	17.0	244	3.2	166	14.0
MALES with earnings 3/	49,422	100.0	9,290	100.0	1,082	100.0	2,278	100.0	5,178	100.0	752	100.0
$1 to $2,499 or less	430	0.9	71	0.8	9	0.8	13	0.6	39	0.7	11	1.4
$2,500 to $4,999	133	0.3	28	0.3	7	0.6	2	0.1	18	0.4	1	0.2
$5,000 to $9,999	769	1.6	226	2.4	12	1.1	36	1.6	166	3.2	12	1.5
$10,000 to $14,999	2,002	4.1	983	10.6	49	4.5	104	4.6	780	15.1	49	6.5
$15,000 to $19,999	2,980	6.0	1,262	13.6	37	3.5	172	7.5	991	19.1	62	8.3
$20,000 to $24,999	4,231	8.6	1,266	13.6	87	8.1	176	7.7	910	17.6	93	12.3
$25,000 to $34,999	9,467	19.2	1,720	18.5	186	17.2	372	16.4	1,035	20.0	126	16.8
$35,000 to $49,999	11,150	22.6	1,417	15.3	190	17.6	406	17.8	689	13.3	132	17.6
$50,000 to $74,999	10,117	20.5	1,175	12.6	232	21.5	452	19.8	359	6.9	132	17.5
$75,000 and over	8,144	16.5	1,142	12.3	271	25.0	546	24.0	191	3.7	134	17.8
FEMALES with earnings 3/	36,413	100.0	5,227	100.0	699	100.0	1,605	100.0	2,489	100.0	434	100.0
$1 to $2,499 or less	314	0.9	56	1.1	18	2.6	11	0.7	23	0.9	4	0.8
$2,500 to $4,999	177	0.5	34	0.6	-	-	6	0.4	27	1.1	1	0.3
$5,000 to $9,999	1,008	2.8	262	5.0	16	2.2	45	2.8	183	7.3	18	4.2
$10,000 to $14,999	2,796	7.7	749	14.3	32	4.6	131	8.2	539	21.7	46	10.6
$15,000 to $19,999	4,313	11.8	841	16.1	83	11.9	176	11.0	520	20.9	62	14.2
$20,000 to $24,999	5,028	13.8	759	14.5	104	14.9	212	13.2	369	14.8	74	17.0
$25,000 to $34,999	8,759	24.1	985	18.9	160	22.9	323	20.1	424	17.0	78	17.9
$35,000 to $49,999	7,552	20.7	766	14.7	142	20.4	307	19.1	245	9.8	72	16.7
$50,000 to $74,999	4,434	12.2	523	10.0	89	12.8	280	17.4	107	4.3	46	10.7
$75,000 and over	2,032	5.6	252	4.8	53	7.6	114	7.1	52	2.1	33	7.5

Notes:

1/ The majority of those born in 'Latin America' are from Mexico. Those born in 'Other Areas' are from Africa, Oceania, Bermuda and Canada.

2/ Age 15 years and over.

3/ Earnings for previous calendar year.

SOURCE: U.S. Census Bureau, Current Population Survey, March 2002

Internet Release date: March 10, 2003

Appendix B - Country Groupings

GROUP	MEXICO		JAPAN		KOREA		CHINA		CENTRAL AMERICA		PHILIPPINES		EUROPE				MIDDLE EAST AND ALL OTHER ASIAN COUNTRIES NOT LISTED	
COUNTRIES AND IPUMS CODES	Countries	Codes	Countries	Codes	Countries	Codes	China	50000	Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes
	Mexico	20000	Japan	50100	Korea	50200	Hong Kong	50010	Central America	21000	Philippines	51500	Denmark	40000	Russian Poland	45530	Afghanistan	52000
					North Korea	50210	Macau	50020	Belize/British Honduras	21010			Faeroe Islands	40010	Romania	45600	Iran	52200
					South Korea	50220	Mongolia	50030	Costa Rica	21020			Finland	40100	Transylvania	45610	Bahrain	53000
					East Asia, n.s.	50900	Taiwan	50040	El Salvador	21030			Iceland	40200	Yugoslavia	45700	Cyprus	53100
									Guatemala	21040			Lapland, n.s.	40300	Croatia	45710	Iraq	53200
									Honduras	21050			Norway	40400	Montenegro	45720	Mesopotamia	53210
									Nicaragua	21060			Svalbard and Jan Mayen	40410	Serbia	45730	Iraq/Saudi Arabia	53300
									Panama	21070			Svalbard	40411	Bosnia	45740	Israel/Palestine	53400
									Canal Zone	21071			Jan Mayen	40412	Dalmatia	45750	Gaza Strip	53410
									Central America, n.s.	21090			Sweden	40500	Slovonia	45760	Palestine	53420
													Ireland	41400	Carniola	45770	West Bank	53430
													Northern Ireland	41410	Slovenia	45780	Jordan	53500
													Northern Europe, n.s.	41900	Kosovo	45790	Kuwait	53600
													Belgium	42000	Central Europe, n.s.	45800	Lebanon	53700
													France	42100	Eastern Europe, n.s.	45900	Oman	53800
													Alsace-Lorraine	42110	Estonia	46000	Qatar	53900
													Alsace	42111	Latvia	46100	Saudi Arabia	54000
													Lorraine	42112	Lithuania	46200	Syria	54100
													Liechtenstein	42200	Baltic States, n.s.	46300	Turkey	54200
													Luxembourg	42300	Other USSR/Russia	46600	European Turkey	54210
													Monaco	42400	Byelorussia	46510	Asian Turkey	54220
													Netherlands	42500	Moldavia	46520	United Arab Emirates	54300
													Switzerland	42600	Bessarabia	46521	Yemen Arab Republic (North)	54400
													Western Europe, n.s.	42900	Ukraine	46530	Yemen, PDR (South)	54500
													Albania	43000	Armenia	46540	Persian Gulf States, n.s.	54600
													Andorra	43100	Azerbaijan	46541	Middle East, n.s.	54700
													Gibraltar	43200	Georgia	46542	Southwest Asia, n.e.c./n.s.	54800
													Greece	43300	Kazakhstan	46543	Asia Minor, n.s.	54900
													Dodecanese Islands	43310	Kirghizia	46544	South Asia, n.e.c.	55000
													Turkey Greece	43320	Tadzhik	46545	Asia, n.e.c./n.s.	59900
													Macedonia	43330	Turkmenistan	46546		
													Italy	43400	Uzbekistan	46547		
													Malta	43500	Siberia	46548		
													Portugal	43600	USSR, n.s.	46590		
													Azores	43610	Europe, n.s.	49000		
													Madeira Islands	43620				
													Cape Verde Islands	43630				
													St. Miguel	43640				
													San Marino	43700				
													Spain	43800				
													Vatican City	43900				
													Southern Europe, n.s.	44000				
													Austria	45000				
													Austria-Hungary	45010				
													Austria-Graz	45020				
													Austria-Linz	45030				
													Austria-Salzburg	45040				
													Austria-Tyrol	45050				
													Austria-Vienna	45060				
													Bulgaria	45100				
													Czechoslovakia	45200				
													Bohemia	45210				
													Bohemia-Moravia	45211				
													Slovakia	45212				
													Check Republic	45213				
													Germany	45300				
													Berlin	45301				
													West Germany	45310				
													Baden	45311				
													Bavaria	45312				
													Bremen	45313				
													Brunswick	45314				
													Hamburg	45315				
													Hanover	45316				
													Hessen	45317				
													Hessen Nassau	45318				
													Holstein	45319				
													Lippe	45320				
													Lubeck	45321				
													Oldenburg	45322				
													Rhine Province	45323				
													Schleswig	45324				
													Schleswig-Holstein	45325				
													Schwarzburg	45326				
													Thuringian States	45353				
													Prussia, n.e.c.	45360				
													Hohenzollern	45361				
													Niedersachsen	45362				
													Hungary	45400				
													Poland	45500				
													Austrian Poland	45510				
													Galicia	45511				
													German Poland	45520				
													East Prussia	45521				
													Pomerania	45522				
													Posen	45523				
													Prussian Poland	45524				
													Silesia	45525				
													West Prussia	45526				

Note: All countries taken from IPUMS data; groupings based on author's research

AFRICA		CARIBBEAN		SOUTH AMERICA, OCEANIA, AND ANTARCTICA		INDOCHINA AND VIETNAM		UNITED KINGDOM AND CANADA		INDIAN SUB-CONTINENT		UNITED STATES OF AMERICA	
Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes	Countries	Codes
AFRICA	60000	Cuba	25000	SOUTH AMERICA	30000	Brunei	51000	England	41000	India	52100	Alabama	100
Northern Africa	60010	West Indies	26003	Argentina	30005	Cambodia (Kampuchea)	51100	Channel Islands	41010	Bangladesh	52110	Alaska	200
Algeria	60011	Dominican Republic	26010	Bolivia	30010	Indonesia	51200	Guernsey	41011	Bhutan	52120	Arizona	400
Egypt/United Arab Rep.	60012	Haiti	26020	Brazil	30015	East Indies	51210	Jersey	41012	Burma (Myanmar)	52130	Arkansas	500
Libya	60013	Jamaica	26030	Chile	30020	East Timor	51220	Isle of Man	41020	Pakistan	52140	California	600
Morocco	60014	British West Indies	26040	Colombia	30025	Laos	51300	Scotland	41100	Sri Lanka (Ceylon)	52150	Colorado	800
Sudan	60015	Anguilla	26041	Ecuador	30030	Malaysia	51400	Wales	41200	India	52100	Connecticut	900
Tunisia	60016	Antigua-Barbuda	26042	French Guiana	30035	Singapore	51600	United Kingdom, n.s.	41300	Bangladesh	52110	Delaware	1000
Western Sahara	60017	Bahamas	26043	Guyana/British Guiana	30040	Thailand	51700	Canada	15000	Bhutan	52120	District of Columbia	1100
North Africa, n.s.	60018	Barbados	26044	Paraguay	30045	Vietnam	51800	English Canada	15010	Burma (Myanmar)	52130	Florida	1200
Benin	60020	British Virgin Islands	26045	Peru	30050	Southeast Asia, n.s.	51900	British Columbia	15011	Pakistan	52140	Georgia	1300
Burkina Faso	60021	Aruba	26046	Suriname	30055	Indochina, n.s.	51910	Alberta	15013	Sri Lanka (Ceylon)	52150	Hawaii	1500
Gambia	60022	Curaçao	26047	Uruguay	30060			Saskatchewan	15015			Idaho	1600
Ghana	60023	Jost Van Dyke	26048	Venezuela	30065			Northwest	15017			Idaho Territory	1610
Guinea	60024	Peter	26049	South America, n.s.	30090			Rupert's Land	15018			Illinois	1700
Guinea-Bissau	60025	Tortola	26050	Australia and New Zealand	70000			Manitoba	15020			Indiana	1800
Ivory Coast	60026	Virgin Gorda	26051	Australia	70010			Red River	15021			Iowa	1900
Liberia	60027	Other West Indies	26070	Ashmore and Cartier Islands	70011			Ontario/Upper Canada	15030			Kansas	2000
Mali	60028	Dutch West Indies		Coral Sea Islands Territory	70012			Upper Canada	15031			Kentucky	2100
Mauritania	60029	Aruba	26071	New Zealand	70020			Canada West	15032			Louisiana	2200
Niger	60030	Netherlands Antilles	26072	Pacific Islands	71000			New Brunswick	15040			Maine	2300
Nigeria	60031	Bonaire	26073	New Caledonia	71010			Nova Scotia	15050			Maryland	2400
Senegal	60032	Curacao	26074	Norfolk Islands	71011			Cape Breton	15051			Massachusetts	2500
Sierra Leone	60033	Dutch St. Maarten	26075	Papua New Guinea	71012			Halifax	15052			Michigan	2600
Togo	60034	Saba	26076	Solomon Islands	71013			Prince Edward Island	15060			Minnesota	2700
Western Africa, n.s.	60038	St. Eustatius	26077	Vanuatu (New Hebrides)	71014			Newfoundland	15070			Mississippi	2800
French West Africa, n.s.	60039	Dutch Caribbean, n.s.	26079	Melanesia, n.s.	71019			French Canada	15080			Missouri	2900
British Indian Ocean Territory	60040	French St. Maarten	26080	Cook Islands	71020			Quebec	15081			Montana	3000
Burundi	60041	Guadeloupe	26081	Fiji	71021			Lower Canada	15082			Nebraska	3100
Comoros	60042	Martinique	26082	French Polynesia	71022			Canada East	15083			Nevada	3200
Djibouti	60043	St. Barthelemy	26083	Tonga	71023			St. Pierre and Miquelon	15500			New Hampshire	3300
Ethiopia	60044	French Caribbean, n.s.	26089	Wallis and Futuna Islands	71024			Atlantic Islands	18000			New Jersey	3400
Kenya	60045	Antilles, n.s.	26090	Western Samoa	71025			Bermuda	18010			New Mexico	3500
Madagascar	60046	Caribbean, n.s.	26091	Polynesia, n.s.	71029			Cape Verde	18020			New Mexico Territory	3510
Malawi	60047	Latin America, n.s.	26092	Christmas Island	71030			Falkland Islands	18030			New York	3600
Mauritius	60048	Leeward Islands, n.s.	26093	Cocos Islands	71031			Greenland	18040			North Carolina	3700
Mozambique	60049	West Indies, n.s.	26094	Kiribati	71032			St. Helena and Ascension	18050			North Dakota	3800
Reunion	60050	Windward Islands, n.s.	26095	Canton and Enderbury	71033			Canary Islands	18060			Ohio	3900
Rwanda	60051	Puerto Rico	11000	Nauru	71034			North America, n.s.	19900			Oklahoma	4000
Seychelles	60052	U.S. Virgin Islands	11500	Niue	71035							Indian Territory	4010
Somalia	60053	St. Croix	11510	Pitcairn Island	71036							Oregon	4100
Tanzania	60054	St. John	11520	Tokelau	71037							Pennsylvania	4200
Uganda	60055	St. Thomas	11530	Tuvalu	71038							Rhode Island	4400
Zambia	60056	Other US Possessions	12000	Micronesia, n.s.	71039							South Carolina	4500
Zimbabwe	60057	Johnston Atoll	12010	US Pacific Trust Territories	71040							South Dakota	4600
Bassas da India	60058	Midway Islands	12020	Marshall Islands	71041							Dakota Territory	4610
Europa	60059	Wake Island	12030	Micronesia	71042							Tennessee	4700
Glorioso	60060	Other US Caribbean Is.	12040	Kosrae	71043							Texas	4800
Juan de Nova	60061	Navassa Island	12041	Pohnpei	71044							Utah	4900
Mayotte	60062	Other US Pacific Is.	12050	Truk	71045							Utah Territory	4910
Tromelin	60063	Baker Island	12051	Yap	71046							Vermont	5000
Eastern Africa, n.e.c/n.s	60064	Howland Island	12052	Northern Mariana Islands	71047							Virginia	5100
Eritrea	60065	Jarvis Island	12053	Palau	71048							Washington	5300
Central Africa	60070	Kingman Reef	12054	Pacific Trust Territories, n.s.	71049							West Virginia	5400
Angola	60071	Palmyra Atoll	12055	Oppenton Island	71050							Wisconsin	5500
Cameroon	60072	US outlying areas, n.s.	12090	Oceania, n.s./n.e.c	71090							Wyoming	5600
Central African Republic	60073	US possessions, n.s.	12091	ANTARTICA, n.s./n.e.c.	80000							Wyoming Territory	5610
Chad	60074	US territory, n.s. (US Pacific Trust Territories at code 710)	12092	Bouvet Islands	80010							Native American	9000
Congo	60075			British Antarctic Terr.	80020							United States, n.s.	9900
Equatorial Guinea	60076			Dronning Maud Land	80030								
Gabon	60077			French Southern and Antartic Lands	80040								
Sao Tome and Principe	60078			Heard and McDonald Islands	80050								
Zaire	60079												
Central Africa, n.s.	60090												
Equatorial Africa, n.s.	60091												
French Equatorial Africa, n.s.	60092												
Southern Africa	60093												
Botswana	60091												
Lesotho	60092												
Namibia	60093												
South Africa (Union of)	60094												
Swaziland	60095												
Southern Africa, n.s.	60096												
Africa, n.s./n.e.c.	60099												

Note: All countries taken from IPUMS data; groupings based on author's research

Appendix C - Variable Definitions and Hypothesized Signs

VARIABLE NAME	DEFINITION	HYPOTHESIZED SIGN	OMITTED/COMPARISON GROUP (FOR DUMMY VARIABLES)
DEPENDENT VARIABLE			
Lnhrwg	Natural log of wage per hour	N/A	N/A
KEY VARIABLES			
Female (β_2)	1 if female, 0 otherwise	-	Males
Mex (β_3)	1 if born in Mexico, 0 otherwise	-	Born in the U.S.
Japan (β_4)	1 if born in Japan, 0 otherwise	-	Born in the U.S.
Korea (β_5)	1 if born in Korea, 0 otherwise	-	Born in the U.S.
China (β_6)	1 if born in China, 0 otherwise	-	Born in the U.S.
Cename (β_7)	1 if born in Central America, 0 otherwise	-	Born in the U.S.
Phil (β_8)	1 if born in the Philippines, 0 otherwise	-	Born in the U.S.
Europe (β_9)	1 if born in Europe, 0 otherwise	-	Born in the U.S.
Mideas (β_{10})	1 if born in the Middle East and all Asian countries not otherwise listed, 0 otherwise	-	Born in the U.S.
Africa (β_{11})	1 if born in Africa, 0 otherwise	-	Born in the U.S.
Caribb (β_{12})	1 if born in the Caribbean, 0 otherwise	-	Born in the U.S.
Souame (β_{13})	1 if born in South America, Oceania or Antarctica, 0 otherwise	-	Born in the U.S.
Indoch (β_{14})	1 if born in Indochina or Vietnam, 0 otherwise	-	Born in the U.S.
Ukcan (β_{15})	1 if born in the United Kingdom or Canada, 0 otherwise	-	Born in the U.S.
India (β_{16})	1 if born in the Indian Sub-Contintent, 0 otherwise	-	Born in the U.S.
F.mex (β_{17})	Female*Mex	-	Female*Born in U.S.
F.japan (β_{18})	Female*Japan	-	Female*Born in U.S.
F.korea (β_{19})	Female*Korea	-	Female*Born in U.S.
F.china (β_{20})	Female*China	-	Female*Born in U.S.
F.cenam (β_{21})	Female*Cename	-	Female*Born in U.S.
F.phil (β_{22})	Female*Phil	-	Female*Born in U.S.
F.Europ (β_{23})	Female*Europe	-	Female*Born in U.S.
F.midea (β_{24})	Female*Mideast	-	Female*Born in U.S.
F.Afric (β_{25})	Female*Africa	-	Female*Born in U.S.
F.carib (β_{26})	Female*Caribb	-	Female*Born in U.S.
F.souam (β_{27})	Female*Souame	-	Female*Born in U.S.
F.indoc (β_{28})	Female*Indoch	-	Female*Born in U.S.
F.ukcan (β_{29})	Female*Ukcan	-	Female*Born in U.S.
F.india (β_{30})	Female*India	-	Female*Born in U.S.

CONTROL VARIABLES			
Othfaminc (ß31)	income from other family members	-	N/A
Nchild (ß32)	Number of own children in household	-	N/A
Chl5.1 (ß33)	1 child under 5 years of age	-	0 children under 5 years of age
Chl5.2 (ß34)	2 children under 5 years of age	-	0 children under 5 years of age
Chl5.3 (ß35)	3 children under 5 years of age	-	0 children under 5 years of age
Chl5.4 (ß36)	4 children under 5 years of age	-	0 children under 5 years of age
Chl5.5 (ß37)	5 children under 5 years of age	-	0 children under 5 years of age
Chl5.7 (ß38)	7 children under 5 years of age	-	0 children under 5 years of age
Chl5.8 (ß39)	8 children under 5 years of age	-	0 children under 5 years of age
Edug1.4 (ß40)	Total education attained = grades 1-4	+	No education, or only preschool
Edug5.8 (ß41)	Total education attained = grades 5-8	+	No education, or only preschool
Edug9 (ß42)	Total education attained = grade 9	+	No education, or only preschool
Edug10 (ß43)	Total education attained = grade 10	+	No education, or only preschool
Edug11 (ß44)	Total education attained = grade 11	+	No education, or only preschool
Edug12 (ß45)	Total education attained = grade 12	+	No education, or only preschool
Educ1.3 (ß46)	Total education attained = 1-3 years of college	+	No education, or only preschool
Educ4 (ß47)	Total education attained = 4+ years of college	+	No education, or only preschool
Workexp (ß48)	Potential work experience	+	N/A
No.eng (ß49)	Does not speak English at all	-	Speaks English very well
Engnowe (ß50)	Does not speak English well	-	Speaks English very well
Engwell (ß51)	Speaks English well	-	Speaks English very well
Yrsusa (ß52)	Years spent in the United States for immigrants, age for natives	+	N/A
Sqyrusa ((ß53)	Square of Yrsusa	-	N/A
Ageimm (ß54)	Age at time of immigration	-	N/A
South (ß55)	Southern region	+/-	Midwest
West (ß56)	Western region	+/-	Midwest
Neast (ß57)	Northeastern region	+/-	Midwest
Metstat (ß58)	Metropolitan Status	+	Not in metropolitan area

Appendix D - Regression Results

DEPENDENT VARIABLE = Lnhrwg				
VARIABLE NAME	RESULTS – MODEL 1 (Demographics only)	RESULTS - MODEL 2 (adding human capital control variables)	HYPOTHESIZED SIGN	OMITTED/COMPARISON GROUP (FOR DUMMY VARIABLES)
Constant	2.305 (289.786)***	1.453 (53.314)***	N/A	N/A
Adjusted R^2	.083	.180	N/A	N/A
KEY VARIABLES				
Female (β_2)	-.420 (-37.830)***	-.444 (-42.195)***	-	Males
Mex (β_3)	-.368 (-28.818)***	.184 (11.461)***	-	Born in the U.S.
Japan (β_4)	.314 (6.154)***	.215 (4.385)***	-	Born in the U.S.
Korea (β_5)	-.276 (-7.229)***	-.296 (-7.853)***	-	Born in the U.S.
China (β_6)	.07493 (2.698)***	.04925 (1.734)*	-	Born in the U.S.
Cename (β_7)	-.274 (-11.643)***	.163 (6.658)***	-	Born in the U.S.
Phil (β_8)	.200 (6.740)***	.134 (4.485)***	-	Born in the U.S.
Europe (β_9)	.07251 (4.084)***	.07023 (3.790)***	-	Born in the U.S.
Mideas (β_{10})	-.001695 (-.054)	-.09061 (-2.886)***	-	Born in the U.S.
Africa (β_{11})	-.01159 (-.351)	-.08006 (-2.453)**	-	Born in the U.S.
Caribb (β_{12})	-.283 (-15.774)***	-.04974 (-2.591)**	-	Born in the U.S.
Souame (β_{13})	-.123 (-5.285)***	.02115 (.880)	-	Born in the U.S.
Indoch (β_{14})	-.169 (-6.703)***	.02595 (.999)	-	Born in the U.S.
Ukcan (β_{15})	.353 (13.046)***	.232 (8.678)***	-	Born in the U.S.
India (β_{16})	.316 (11.987)***	.160 (5.893)***	-	Born in the U.S.
F.mex (β_{17})	-.386 (-20.756)***	-.360 (-20.421)***	-	Female*Born in U.S.
F.japan (β_{18})	-.646 (-9.697)***	-.509 (-8.075)***	-	Female*Born in U.S.
F.korea (β_{19})	-.195 (-3.890)***	-.07294 (-1.533)	-	Female*Born in U.S.
F.china (β_{20})	-.179 (-4.707)***	-.04013 (-1.113)	-	Female*Born in U.S.
F.cenam (β_{21})	-.218 (-6.551)***	-.232 (-7.345)***	-	Female*Born in U.S.
F.phil (β_{22})	.129 (3.302)***	.133 (3.606)***	-	Female*Born in U.S.
F.Europ (β_{23})	-.219 (-8.876)***	-.153 (-6.555)***	-	Female*Born in U.S.
F.midea (β_{24})	-.472 (-9.730)***	-.289 (-6.299)***	-	Female*Born in U.S.
F.Afric (β_{25})	-.04119 (-.839)	.07967 (1.714)**	-	Female*Born in U.S.
F.carib (β_{26})	.07267 (2.934)***	.03921 (1.673)*	-	Female*Born in U.S.
F.souam (β_{27})	-.178 (-5.541)***	-.129 (-4.231)***	-	Female*Born in U.S.
F.indoc (β_{28})	-.08316 (-2.356)**	.04003 (1.198)	-	Female*Born in U.S.
F.ukcan (β_{29})	-.384 (-10.191)***	-.279 (-7.824)***	-	Female*Born in U.S.
F.india (β_{30})	-.672 (-17.289)***	-.506 (-13.739)***	-	Female*Born in U.S.

CONTROL VARIABLES				
Othfaminc (ß31)	N/A	-.000001291 (-49.582)***	-	N/A
Nchild (ß32)	N/A	.01963 (7.351)***	-	N/A
Chl5.1 (ß33)	N/A	-.05346 (-5.501)***	-	0 children under 5 years of age
Chl5.2 (ß34)	N/A	-.152 (-9.241)***	-	0 children under 5 years of age
Chl5.3 (ß35)	N/A	-.284 (-6.146)***	-	0 children under 5 years of age
Chl5.4 (ß36)	N/A	-.01322 (-.096)	-	0 children under 5 years of age
Chl5.5 (ß37)	N/A	-.482 (-1.298)	-	0 children under 5 years of age
Chl5.7 (ß38)	N/A	-2.374 (-2.022)*	-	0 children under 5 years of age
Chl5.8 (ß39)	N/A	.636 (.542)	-	0 children under 5 years of age
Edug1.4 (ß40)	N/A	.07046 (2.576)**	+	No education, or only preschool
Edug5.8 (ß41)	N/A	.08814 (4.625)***	+	No education, or only preschool
Edug9 (ß42)	N/A	.09732 (4.208)***	+	No education, or only preschool
Edug10 (ß43)	N/A	.02078 (.820)	+	No education, or only preschool
Edug11 (ß44)	N/A	.09114 (3.501)***	+	No education, or only preschool
Edug12 (ß45)	N/A	.309 (17.085))***	+	No education, or only preschool
Educ1.3 (ß46)	N/A	.587 (31.557)***	+	No education, or only preschool
Educ4 (ß47)	N/A	.996 (52.893)***	+	No education, or only preschool
Workexp (ß48)	N/A	dropped	+	N/A
No.eng (ß49)	N/A	-.344 (-21.702)***	-	Speaks English very well
Engnowe (ß50)	N/A	-.253 (-21.822)***	-	Speaks English very well
Engwell (ß51)	N/A	-.116 (-11.631)***	-	Speaks English very well
Yrsusa (ß52)	N/A	.02633 (31.664)***	+	N/A
Sqyrusa ((ß53)	N/A	-.0004231 (-32.246)***	-	N/A
Ageimm (ß54)	N/A	-.001747 (-4.122)***	-	N/A
South (ß55)	N/A	-.09817 (-10.078)***	+/-	Midwest
West (ß56)	N/A	-.08610 (-8.543)***	+/-	Midwest
Neast (ß57)	N/A	-.01318 (-1.234)	+/-	Midwest
Metstat (ß58)	N/A	.166 (18.821)***	+	Not in metropolitan area

NOTES:

1/ * Significant at the .10 level
** Significant at the .05 level
*** Significant at the .01 level

2/ Unpredicted results for control variables:

- Nchild is positive and significant. The unexpected (+) sign may be caused by the fact that additional children give parents greater motivation to strive for higher salaries. Alternately, the coefficient may be biased by individuals without children.
- Having more than 3 children under age 5 has insignificant effects. This could be caused by the existence of a diminishing marginal effect for additional children (due to parents having more experience etc.). However, Chl5.7 is significant. This could be a biased result because only one individual in the sample had 7 children under 5 years of age.

- Edug10 isinsignificant. This may be a result of correlation between the eduaction variables.
- Workexp was highly correlated with Ageimm, Education, Yrsusa2 and Sqyrus2. It was therefore removed from the analysis.
-People in the west earn lower wages than those in the midwest, which is unexpected. Also, northeast is negative but insignificant. These results may be biased by the fact that they include natives as well. The discussed literature on wage differentials did not consider geographical differences in the wages of natives.