Earnings and English Language Ability: Foreign Born Asian Men, 2000

Abstract

This paper explores the relationship between English language ability and earnings in the United States using the five and one percent sample of the 2000 census data for the six major Asian immigrant groups; Asian Indian, Chinese, Filipino, Japanese, Korean, and Vietnamese relative to native born white. The relationship is in the expected direction, greater (English) language ability is associated means higher earnings. The significance of the relationship remains even after controlling for the human capital and assimilation factors. Shorter duration of stay in the United States is not necessarily associated with lower earnings for the foreign born working population once the human capital factors and the personal characteristics have been taken into account.

Research on the economic experiences of immigrants documents the positive relationship between the knowledge of the dominant language of the host country and earnings of the immigrants (Chiswick and Miller 1995, 1999, 2004; Dustman and Fabbri 2003; Pendakur and Pendakur 2002). The shifting composition of o immigrants who are from countries where English is neither a dominant nor an official language) as well as the rising rates of immigration into the United States (US henceforth) underscore the significance of this relationship. There, has however not been sufficient research that compares immigrant sub –groups with one another and especially not between the major Asian groups ; Asian Indians (Indians henceforth), Chinese, Filipinos, Japanese, Koreans and Vietnamese. The present study is motivated by the lack of such an investigation.

In this paper, I examine the relationship between English language proficiency and earnings for men who are born in China, India , Japan, Korea, the Philippines, Vietnam or the US and participate in the US labor market. Foreign born men from the six countries provide an interesting analytical mix from a comparative research perspective for a variety of reasons. While China, India , Philippines are developing countries and given that the economic development of the source countries affects both the number and the skills and the adaptability of their emigrants (in the host country) (Chiswick 1978; Feliciano 2005), it would be interesting to examine how the substantially greater presence of English in India and the Philippines (relative to that in China,

Korea, Japan and Vietnam) play out compared to the two more developed countries of the group, namely Japan and Korea and the poorest country, Vietnam. In addition, the historical context of immigration from each of these countries has been different.

Thus, the three immigrant groups, originating from countries with different levels of economic development, varying levels of English language domination and with different historical presence in the US, potentially, provide a useful site to examine the relationship between language ability and earnings in a comparative perspective.

I Background

Even though US has always been a multi-lingual country and English is not the official language of the country, the hegemonic position of English is unquestionable (Alba et.al 2002; Stevens 2003). The economic pay offs of knowing English have been demonstrated by numerous studies (Chiswick 1978; Chiswick and Miller 1995; Chiswick and Miller 1999; Friedberg 2000). It has been shown using the decennial census that immigrants in the United States who are proficient (in English) earn 15 to 20 percent more than the immigrants who have not mastered the English language (Chiswick and Miller 1999). Borjas (1994, page 1684-85) reports similar research examining the relationship between English language proficiency and earnings of immigrants. Much in the same vein, are the findings of studies that focus on specific immigrant groups, the latter and unsurprisingly so with reference to Hispanics, most of the times (McManus, Gould and Welch 1983; Espinosa and Massey 1997). Thus, though self –employment and employment in ethnic economies can ameliorate the influence of language ability, nevertheless, lack of (English) language proficiency is a serious disadvantage for immigrants (Light 1984, Portes and Bach 1985).

Theoretically, the relationship between language ability and earnings can be situated in both the micro-economic human capital and assimilationist perspectives. Human capital theory views language as a capital whose presence yields positive return. Thus, rational actors with an objective of maximizing their welfare (indicated by earnings, in this context) will try to acquire

the 'language capital'. The assimilation model posits that acquisition of the (ability of) dominant language of the host country is an indication of assimilation (in the host society), or following Milton Gordon's (1964) classification, cultural assimilation. Cultural assimilation and socio-economic assimilation (as reflected by attainments in educational, occupational and earnings similar to the majority) reinforce one another (Alba and Nee 2003).

My conceptualization in this specific context departs from the above two way relationship, by investigating how language ability (an indicator of cultural assimilation) impacts earnings. Thus, my framework is more in line with the one proposed by the human capital perspective combined with the elements of the assimilation model, the latter being that longer duration of stay (in the host country) facilitates greater skill (language in this case) acquisition. Language ability is viewed as a capital and therefore the extent of its existence influences earnings in the sense that greater language ability translates into higher earnings. However, this relationship has been shown to be confounded by other factors like length of stay, level of education, occupation, age, marital status, spatial concentration (Alba et.al 2002; Stevens 1992; Stevens 2003). This relationship gets further complicated by the overwhelming belief with notable supporting evidence that immigrants are not the representative of the average population of their countries of origin, both in terms of observable (years of education, work experience, skills) and unobservable characteristics (motivation, ability to work, risk loving) and positively select themselves (Feliciano 2005; Stevens 2003). Given the above, the broad question that this paper attempts to address is how do the earlier listed myriad of factors interplay in determining earnings for the foreign born Chinese, Filipino, Indian, Japanese, Korean and Vietnamese men relative to native born white men?

II Research Questions and Sample

The specific objectives of this paper include;

a) to present a profile of the key socio-economic and demographic characteristics in a comparative perspective for the six groups of foreign born men and native born white aged 25-65; and are not in school.

b) to document the differences in earnings, length of stay, educational attainments and region of residence by (English) language ability

c) to examine the association between (English) language ability, duration of stay, educational attainments, occupation, self employment status, citizenship status, region of residence, marital status on earnings, for those who report positive earnings.

Following the standard practice of labor force literature, my sample consists of non-institutionalized men in the age group of 25-65 (Chiswick 1978, Hisrchman and Wong 1984) who self identify themselves as Chinese, Filipino, Indian, Japanese, Korean, Vietnamese and white.

For the descriptives, I use the entire sample of non –institutionalized foreign born and native born white men aged 25 to 65. For the regression analysis, the sample is men aged 25 and 65 who report having positive earnings. The number of observations in the various samples is as follows; (See Figure 1).

Sample Size/Ethnicity	**Chinese**	**Filipino**	**Indian**	**Japanese**	**Korean**	**Vietnamese**	**Native born White**
All	12507	15966	16094	3134	7656	12197	503620
Reporting positive earnings	10889	14348	14953	2191	6753	10582	443120

III Data and Variables

Data

The data set that I will use to explore the answers to the above questions is the five percent state sample Integrated Public Use Microdata Series (IPUMS) of the 2000 Census. Despite the limitations posed by not containing retrospective information on immigration, it is the only data set that provides one with enough number of observations in each of the specific Asian immigrant sub-group to enable a disaggregated analysis (by immigrant sub-group).

Variables

Dependent Variable – The dependent variable is the logarithm of total individual hourly earned income, which within a human capital framework best summarizes the marginal productivity of a worker. This has been generated by using the information on number of weeks worked in the last one year and the usual hours worked per week and subsequently transformed into logarithm. Earned income includes income earned from wages or from one's own farm or business.

Independent Variable –The independent variable of interest is the English language ability. This variable (SPEAKENG) indicates whether the persons speak English or not and how well they speak. It is a self –reported measure of the (English) language ability. It is a coded as an ordinal variable.

Control variables – The control variables are; duration of stay, educational attainment, occupation, type of work, marital status, region of residence. The choice of these controls has been informed by the theoretical and empirical evidence provided in the literature. While most of them are self –explanatory, I would like to provide some elaboration for the duration (of stay in the US), ethnicity variable.

In a recent paper, Redstone and Massey (2004) point out the ambiguity with the question related to the variable 'duration of stay'. The responses are subjective depending on when the person perceives oneself to having come to live in the US[1]. The imperfection of the measure gets enhanced in the situations of high rates of multiple entry and return migration. Despite the shortcoming, I use the variable owing to a lack of a better indicator.

As far as ethnicity is concerned, anyone who self identifies as Chinese, Filipino, Indian, Japanese, Korean, Vietnamese, or native born white and is born in China, India, Japan, Korea, the Philippines, Vietnam or the US is accordingly classified as foreign born Chinese, Indian, Japanese, Korean, Filipino, Vietnamese or native born white.

[1] The question asked in the 2000 Census is 'when did this person come to live in the United States?'

A more detailed description of the variables and their recodes is provided in Appendix 1. The means and standard deviation of the dependent and independent variables used in the regression analysis can be found in Appendix 2. Descriptive statistics is presented in tables 1 and 2. In case of the descriptive statistics, I conduct the statistical tests to check for the significance of the difference in the means (for the various variables) between the groups and obtain significant results. Since my dependent variable is a continuous one, I run the Ordinary Least Square (OLS) regression[2]. The regression results are presented in Table 3.

IV Results

Descriptive results – Univariate

The distribution of the independent variable, **English language ability** is in the expected direction. Among the foreign born, the percentage of Indians who belong to the category of 'speak only English and speak very well' is highest for Indians (78.72), followed by Filipinos[3]. The pattern of distribution across the various categories is similar for Chinese and Japanese except when one looks at the category of 'no English'. The percentage of people who cannot speak English at all is much higher for the Chinese as compared to the others who too come from countries where English is neither a dominant or an official language such as Japan, Korea and Vietnam. (See Table 1).

As far as **educational attainment** is concerned, Indians emerge as the most educated, both in terms of percentage who have had no schooling and who have a masters and a higher degree. While both Indians and Japanese tend to be concentrated in the higher education categories ('some college, associate degree' and higher), the distribution of Chinese is more even. It may be noted that unlike (English) language ability, educational attainments for the recent immigrants are higher for the all the three groups. In case of Chinese, even though there is not so

[2] A separate regression analysis was conducted including all the flags for the missing cases. None of the flags emerge to be statistically significant.

[3] The t-tests to examine if the inter-group differences are statistical significance shows that the differences are statistically significant.

much of a difference in the 'no school' category, there is a considerable difference for the percentage that have a masters or a higher degree. Of all the groups, the percentage of foreign born Vietnamese with a college and above degree is lowest.

With regard to **occupation**, the Koreans are distinct category with nearly one third of their population engaged in self employment. The Filipinos both relative to the foreign as well as native born have very low self employment rate. The percentage engaged in professional, managerial and specialty categories is higher for all the foreign born relative to the native born with the exceptions of Filipinos and Vietnamese. (See Table 1). The lower educational level of Vietnamese may help explain their lower share in the professional, managerial and specialty occupation. In case of Filipinos it is probably because of their traditional engagement technical and other service occupations as opposed to management positions.

The median **income** of Indians and Japanese ($50,000 each) is not only higher that native born white but is more than twice as high as that of Chinese and nearly twice as high as that of Vietnamese. The same trend holds for hourly income. This does not come as a surprise, given the higher concentration of the former categories in the 'professional, managerial and specialty' and 'technical' categories for the groups as a whole.

As far as the **duration of stay** (in the US) is concerned, foreign born Filipinos are the oldest and Japanese, the youngest. (See Table 1). Accordingly, the percentage of population that has acquired citizenship is one of the highest for Filipinos and is lowest for the Japanese. In terms of age however, Indians are the youngest, both relative to other foreign born groups and to the native born.

With respect to **marital status**, both the proportion separated, divorced or never married is the highest for Japanese, marginally higher than native born white too.

Spatially, the western part of the country seems to be the 'hub' for immigrants. Nearly 50 percent and in some cases, much more than 50 percent, of the foreign born population is concentrated in the western region. The only notable exceptions are Indians. The next region

which attracts foreign born is north east of the country. It may be noted that historically, all the foreign born Asian groups entered the US via the west coast.

Descriptive results –Bivariate

The bivariate statistics shows the expected trends barring few exceptions. Hourly earnings are higher for those with better English language ability, higher educational levels, longer duration of stay in the country. For all the groups, those who only speak English or speak it very well earn the highest relative to those with lower language ability. The difference is much higher for groups like Chinese which have relatively lower language ability (See Table 2 and Figure 2).

Higher education results in higher earnings which corroborates well with the observation that education is valued substantially in a knowledge based economy such as the US. In case of Japanese, the college educated make more money than those with the masters and a higher degree. Japanese are an exception in the relationship between duration of stay in the US and the hourly earnings. While for the rest of the foreign born, longer stay in the country increases their earnings, same cannot be said for the Japanese. The Japanese who are in the US for the shortest duration of time are earning the highest hourly income. (See Table 2 and Figure 3). Self employed foreign born earn more than those working for wages and salary.

The observation that married men earn more for all the groups than those who are unmarried is very much in line with the existing economic and sociological literature. Acquisition of citizenship raises earnings.

Though foreign born tend to be concentrated in the western part of the country, living in the west is not necessarily associated with higher earnings. Among the foreign born Japanese, those living in the north east earn the highest. In case of Filipinos, Koreans and Vietnamese, those residing in the mid-west earn the most.

Multivariate results

I use Ordinary Least Square (OLS) regression to assess the net effects of the select variables on the log of hourly earnings. The bivariate model with the independent variable, language ability shows that the earnings of those who do not know English, can't speak well and can speak well earn 79 percent, 40 percent and 9 percent respectively less than those who speak only English and speak very well. The inclusion of the ethnicity variable reduces the significance of the English language ability (except for the 'well') category. The coefficients associated with ethnicity show that being foreign born does not mean an earning disadvantage for all the groups except for Vietnamese for whom the coefficient is not significant. Japanese are at the greatest advantage as compared to the other groups.

Model 3 introduces the full complement of the earnings related variables. In the complete model, the coefficients associated with ethnicity however behave differently. After the introduction of controls for education, occupation, work experience, whether self employed or not, occupation, duration of stay, citizenship status, marital status and region of residence, the Chinese and the Filipinos are at a disadvantage relative to native born white. The Koreans too have a negative sign but is not statistically significant.

Education has the impact in the expected direction. Higher education leads to higher earnings. The coefficients for the various categories of the duration of stay variable are not in the expected direction in this model. Shorter duration of stay does not imply a disadvantage. This is because even though the coefficients associated with zero to five years and six to ten years of stay are negative, they are not statistically significant. The only statistically significant coefficient is the one associated with sixteen and more years. Foreign born who are living in the US earn five percent more than the native born and that difference is statistically significant at 95 percent. Citizenship matters in the sense that citizens experience four percent higher earnings than non citizens. The association between earnings and marital status is in the expected direction. Married people are at an earnings advantage experiencing 20 percent higher earnings than the never married, divorced or separated.

Residentially, even though the bi-variate did not show an advantage of living in the west, the multi-variate regression results show that those living in the mid-west and south parts of the country earn eight and nine percent less respectively than those living in the west.

V Discussion

The above analyses demonstrates that the earnings deficit of not knowing English remains in the US labor market even after controlling for the major human capital attributes such as educational attainments, and assimilation factors like duration of stay and citizenship status and demographic factors such as marital status and region of residence.

While majority of the groups and the variables behave in the expected direction, a couple of them deserve a mention. The partial regression coefficients associated with duration of stay variable indicate that the significance of length of stay in the host country does not matter once the key human capital attributes are taken in to account.

A group which behaves rather differently is that of the Japanese. Considering the limited evidence available, one can make at best few educated conjectures in this regard. Japan by virtue of being an economic superpower, has established Japanese – American firms in the wholesale, finance and manufacturing sectors, majority of them having been concentrated in the states of California, New York and New Jersey. There is research that shows the employment in such wholesale and finance industries have provided a very high likelihood of acquiring managerial positions in such firms, between the period 1979 and 1989 (Fang 1997). Japan's continued superior position in the world economy makes the continuation of such a trend very likely. Hence, it is not unreasonable to make a conjecture that a an overwhelming percentage of foreign born Japanese belonging to the short duration category (zero to five years) particularly, benefit from such employment. It may be noted that compared to the other two groups, the percentage of foreign born Japanese (of the entire group of Japanese) is the highest. None of the other groups can claim such high end employment opportunities. Past research has shown that the language penalty varies across major immigrant sub –groups. For instance, there is evidence indicating that

lack of (English) language ability translates into a lower wage deficit for Asians relative to Hispanics (Kossoudji 1988). The earnings trend of Indians and Japanese calls for an investigation as to whether similar patterns exist between more disaggregated groups.

Thus, on one hand, the above results corroborate the existing findings, they do raise some questions about the labor market processes and whether they vary across groups. The latter call for a more nuanced study of the association between (English) language ability and earnings such as an examination of the interactions that may be taking place between the variables such as duration of stay, English language ability.

Before ending, I wish to state major limitations of the study. They are; a) English language ability is self –reported thus not making it a very reliable measure. Also, there is no have information regarding reading and writing ability in English which may also be critical in certain kinds of occupation (Chiswick 1991); b) with a cross-sectional data like the Census, it is only possible to establish mere associations and not causality; c) there is a problem of selection effect which cannot be addressed using the decennial Census data. That is those staying back may be the 'survivors' of selective emigration with 'failures' having gone back; d) the relationship between educational attainments and earnings varies by the place where education was received (Zeng and Xie 2004). The Census does not provide any explicit information on the place where education was received; e) though information on citizenship status is collected, it is difficult to delineate people by detailed status. This is particularly problematic for those with illegal status who may be underreported in the Census. This may bias the results, since legal status can act as an incentive in investing to acquire skills demanded by the host country.

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Table 1: **Select Characteristics for Foreign Born Asian Men by Ethnicity and Native Born White**

Characteristic/ Number of Observations / Ethnicity	**Chinese**	**Filipinos**	**Indians**	**Japanese**
Number of Observations (unweighted)	12507	15966	16094	3134
Socio –Economic				
English Language Ability (in percentage)				
Only English and very well	33.18	68.78	78.72	42.97
Well	28.04	26.54	16.74	37.01
Not well	26.76	4.55	4.06	19.44
No English	12.02	0.13	0.48	0.58
Educational Attainment (in percentage)				
No school	5.55	0.78	0.66	0.45
12^{th} grade and below, no diploma	22.51	7.46	6.76	2.62
High school graduate	14.59	15.11	6.37	12.70
Some college, associate degree	10.14	32.63	8.34	16.31
College degree	14.80	36.49	30.11	44.03
Masters and above	32.41	7.54	47.76	23.89
Median years of work experience	24	23	16	19
Type of Work (in percentage)				
Self employed	12.94	6.00	12.55	11. 65
Wage and salary earner	87.05	94.00	87.45	87.35
Occupation (in percentage)				
Professional, managerial and specialty	39.31	21.64	59.93	49.53
Median income earned (in US $,1999 prices)	24,000	31,300	50,000	50,000
Median hourly income earned (in US $,1999 prices)*	15.00	16.17	25.38	25.00
Mean hourly income earned (in US $,1999 prices)*	26.34	23.69	33.72	40.89
Median length of stay in the US (in years)	12	17	11	9
Duration of stay (in percentage)				
Native born	NA	NA	NA	NA
Zero to five years	19.24	11.25	31.02	41.72
Five to ten years	22.81	17.02	18.48	11.83
Eleven to fifteen years	23.01	17.86	15.65	8.76
Sixteen and more years	34.94	53.87	34.84	37.70
Citizenship status (percentage)				
Citizen	45.90	65.55	39.89	13.60
Not a citizen	53.53	34.45	59.96	80.16
Demographic Characteristics				
Median age (in years)	43	43	38	41
Marital status (in percentage)				
Married	77.01	69.83	77.38	67.15
Single	22.99	30.17	22.62	32.85
Region of residence (in percentage)				
Northeast	37.94	12.13	31.69	21.50
Midwest	9.54	8.18	18.88	13.08
South	14.87	11.91	25.17	14.93
West	37.65	67.78	24.25	50.49

* these figures pertain to only those who report positive earnings. Accordingly, the sample sizes for the seven groups, Chinese, Filipino, Indian, Japanese, Koreans, Vietnamese, native born White are 10889, 147348, 14953, 2191,6753,10582 and 443120 respectively.

Table 1 contd…

Characteristic/ Number of Observations / Ethnicity	**Koreans**	**Vietnamese**	**Native born White**
Number of Observations (unweighted)	7656	12197	503620
Socio –Economic			
English Language Ability (in percentage)			
Only English and very well	34.32	28.40	97.66
Well	34.81	39.51	1.45
Not well	28.94	29.86	0.79
No English	1.92	2.23	0.10
Educational Attainment (in percentage)			
No school	0.86	6.34	0.51
12^{th} grade and below, no diploma	6.29	27.26	11.54
High school graduate	18.28	19.50	29.83
Some college, associate degree	21.93	25.15	29.84
College degree	32.63	15.86	18.57
Masters and above	20.01	5.88	10.60
Median years of potential work experience	22		
Type of Work (in percentage)			
Self employed	32.71	12.21	14.49
Wage and salary earner	67.29	87.79	85.51
Occupation (in percentage)			
Professional, managerial and specialty	27.59	20.73	24.40
Median income earned (in US $,1999 prices)	34,000	27,000	38,000
Median hourly income earned (in US $,1999 prices)**	15.97	13.70	17.17
Mean hourly income earned (in US $,1999 prices)**	28.68	20.88	24.91
Median length of stay in the US (in years)	16	16	NA
Duration of stay (in percentage)			
Native born	NA	NA	100
Zero to five years	16.34	10.20	NA
Five to ten years	13.17	25.87	NA
Eleven to fifteen years	18.38	12.76	NA
Sixteen and more years	52.11	51.17	NA
Citizenship status (percentage)			
Citizen	50.41	65.70	100
Not a citizen	49.59	34.30	NA
Demographic Characteristics			
Median age (in years)	43	40	43
Marital status (in percentage)			
Married	76.98	64.56	66.91
Single	23.02	34.30	33.09
Region of residence (in percentage)			
Northeast	24.83	10.09	19.31
Midwest	9.40	10.03	26.27
South	18.85	31.20	34.89
West	46.91	48.69	19.53

* other includes the categories; ‘farming’, ‘precision’ and ‘operators’.
** these figures pertain to only those who report positive earnings. Accordingly, the sample sizes for the three groups, Chinese, Indian and Japanese are 10952, 14796 and 2922 respectively.

Table 2: Bi-variate Statistics between Hourly Earnings and Select Characteristics for Foreign Born Asian Men by Ethnicity and Native Born White (Weighted)

Characteristic/ Number of Observations / Ethnicity	Chinese	Filipinos	Indians	Japanese
Number of Observations (unweighted)	10889	14348	14953	2191
Socio –Economic				
English Language Ability (in percentage)				
Only English and very well	42.62	25.03	36.83	38.83
Well	24.11	21.65	23.14	46.87
Not well	13.20	15.84	14.04	38.26
No English	10.34	9.43	15.92	20.62
Educational Attainment (in percentage)				
No school	11.02	15.93	14.48	20.23
12^{th} grade and below, no diploma	12.47	19.06	17.10	18.64
High school graduate	14.57	19.37	16.93	32.73
Some college, associate degree	20.77	19.58	19.40	23.39
College degree	24.75	26.07	29.27	50.14
Masters and above	43.77	42.64	43.14	44.14
Median years of work experience				
Type of Work (in percentage)				
Self employed	49.62	40.14	41.88	33.65
Wage and salary earner	22.85	22.72	32.55	42.97
Occupation				
Professional, managerial and specialty	38.43	29.48	37.59	49.81
Duration of stay (in percentage)				
Native born	NA	NA	NA	NA
Zero to five years	19.42	20.78	30.17	52.03
Five to ten years	21.78	19.49	29.65	42.43
Eleven to fifteen years	23.29	22.77	30.28	32.45
Sixteen and more years	35.43	25.91	40.67	30.79
Citizenship status (percentage)				
Citizen	33.03	24.25	37.81	28.44
Not a citizen	20.54	22.59	30.96	43.99
Demographic Characteristics				
Marital status (in percentage)				
Married	28.10	25.38	35.36	44.37
Single	20.05	19.61	27.83	36.11
Region of residence (in percentage)				
Northeast	19.45	26.82	32.59	56.19
Midwest	21.82	37.70	35.05	48.34
South	25.58	23.80	33.16	37.37
West	34.79	21.32	34.76	34.68

Table 2 contd…

Characteristic/ Numbe r of Observations / Ethnicity	**Koreans**	**Vietnamese**	**Native born White**
Number of Observations (unweighted)	6753	10582	443120
Socio –Economic			
English Language Ability (in percentage)			
Only English and very well	30.29	26.23	24.92
Well	32.59	20.89	19.95
Not well	22.62	16.43	23.83
No English	20.44	12.21	15.27
Educational Attainment (in percentage)			
No school	21.26	24.69	14.38
12^{th} grade and below, no diploma	17.46	15.71	16.87
High school graduate	23.64	14.83	18.64
Some college, associate degree	22.29	20.30	22.06
College degree	32.36	29.33	31.88
Masters and above	37.34	36.33	43.41
Median years of potential work experience			
Type of Work (in percentage)			
Self employed	36.01	22.26	33.13
Wage and salary earner	25.12	20.69	23.56
Occupation			
Professional, managerial and specialty	34.71	30.14	33.23
Duration of stay (in percentage)			
Native born	NA	NA	24.92
Zero to five years	29.72	14.54	NA
Five to ten years	21.80	17.82	NA
Eleven to fifteen years	23.99	17.73	NA
Sixteen and more years	31.81	24.02	NA
Citizenship status (percentage)			
Citizen	31.97	22.99	24.92
Not a citizen	25.11	16.46	NA
Demographic Characteristics			
Marital status (in percentage)			
Married	30.16	22.09	27.21
Single	23.21	18.59	19.82
Region of residence (in percentage)			
Northeast	26.71	17.75	27.02
Midwest	32.57	22.31	23.28
South	27.89	19.37	23.58
West	29.27	22.22	27.37

Table 3: Regression on Log of Hourly Earnings [4]

Constant/ Variable/ Number of Observations/ Adjusted R square	Model 1	Model 2	Model 3
Constant	2.85*** (0.02)	2.83*** (0.00)	3.23*** (0.06)
Variables			
English Language Ability (Reference category –speaks only English and speaks well)			
Well	0.09* (0.05)	-0.24*** (0.06)	-0.11*** (0.03)
Not well	-0.40*** (0.11)	-0.55*** (0.14)	-0.24** (0.07)
No English	-0.79*** (0.10)	-0.92*** (0.15)	-0.41*** (0.08)
Ethnicity (Reference category – native born White)			
Chinese		0.16** (0.06)	-0.13*** (0.02)
Filipino		0.05* (0.02)	-0.09*** (0.01)
Indian		0.38*** (0.01)	0.08** (0.02)
Japanese		0.64*** (0.05)	0.32*** (0.02)
Korean		0.25*** (0.06)	-0.03 (0.02)
Vietnamese		0.08 (0.06)	0.02 (0.01)
Educational Attainment (Reference category – masters and above)			
No school			-0.83*** (0.07)
12^{th} grade and below, no diploma			-0.78*** (0.01)
High school graduate			-0.64*** (0.01)
Some college, associate degree			-0.52*** (0.01)
College degree			-0.24*** (0.02)
Years of Potential Work Experience			0.03*** (0.00)
Square of years of potential work experience			-0.00*** (0.00)
Type of Work (Reference category – wage and salary worker)			
Self employed			-0.13*** (0.01)
Occupation (Reference category – professional, managerial and specialty)			
Technical and service			-0.18*** (0.02)

[4] A separate regression analysis was conducted which included the flags for the missing variables. The results do not change. The standard errors are in the brackets.

Framing, construction, production, transportation and other related			-0.18*** (0.01)
Duration of Stay (in the US) (Reference category – native born)			
Zero to five years			-0.03 (0.05)
Six to ten years			-0.04 (0.02)
Eleven to fifteen years			-0.04* (0.02)
Sixteen and more years			0.05** (0.02)
Citizenship status (Reference category – citizen)			
Not a citizen			-0.04* (0.02)
Marital status (Reference category – married)			
Single			-0.20*** (0.01)
Region of residence (Reference category – west)			
Northeast			0.01 (0.01)
Midwest			-0.08*** (0.01)
South			-0.09*** (0.01)
Adjusted R square	0.01	0.02	0.18
Number of Observations	503753	503753	503753

*** $p < 0.001$ ** $p < 0.05$; * $p < 0.01$

Appendix 1

Dependent and Independent Variables and their Description

Variable	Census Codes	Recodes
Dependent		
Log of hourly earnings	Not existing	In US $ at 1999 prices (earning values >0)
Independent		
English Language Proficiency	Does not speak English Speaks only English Speaks English very well Speaks English well Speaks English, but not well	Does not speak English Speaks only English, speaks English very well (Reference category) Speaks English well Speaks English, but not well
Duration of stay	Not applicable 0-5 years 6-10 years 11-15 years 16-20 years 21 years and above	0-5 years 6-10 years 11-15 years 16 and above years (Reference category)
Ethnicity	Chinese (code 400) Indian (code 610) Japanese (code 500)	Chinese Indian Japanese (Reference category)
Educational Attainment	Not applicable No school completed Nursery school Kindergarten 1st -4th grade 5th -8th grade 9th grade 10th grade 11th grade 12th grade, no diploma High school graduate or GED Some college, no degree Associate degree, occupational program Associate degree, academic program Bachelor's degree Master's degree Professional degree Doctorate degree	No school completed Less than 12th grade and 12th grade, no diploma High school graduate or GED Some college, no degree, associate degree, occupational and academic program Bachelor's degree Master's degree and above (Reference category)
Type of work	Self employed Works for wages and salary	Self employed Wage and salary earner (Reference category)
Occupation	Detailed classification	Professional, managerial and specialty

		Technical and service Other
Citizenship status	Not applicable Born abroad of American parents Naturalized citizen Not a citizen	Not applicable, born abroad of American parents, naturalized citizen (Reference category) Not a citizen, not a citizen but has received the first papers, foreign born, citizenship status not reported
Marital Status	Single Married with spouse present Married with spouse absent Separated Divorced Widowed	Married (Reference category) Single
Region of residence	North-east Mid –west South West State unknown	North-east Mid-west South West (Reference category) State unknown has not been considered since there are no observations for that category.

Appendix 2

Number of Observations, Mean and Standard Deviation for the Dependent and Independent Variables

Variable	Number of Observations	Mean	Standard Deviation
Dependent			
Hourly income earned*	503753	24.76135	111.4783
Independent			
English language ability	503753	2.07	0.35
Race	503753	156.35	155.66
Work experience (in years)	503753	23.34	10.75
Work experience square (in years)	503753	660.25	540.70
Educational categories	503753	3.93	1.20
Type of work	503753	1.853647	.3534606
Type of occupation	503753	2.08	0.84
Duration of stay	503753	4.74	0.80
Citizenship status	503753	1.10	0.23
Marital status	503753	1.30	0.46
Region of residence	503753	2.56	1.05

* A log transformation of hourly income earned was done before fitting it as the dependent variable in the regression equation.

Figure 1 : Population Distribution of Foreign Born Asian Men by Ethnicity in the US, 2000

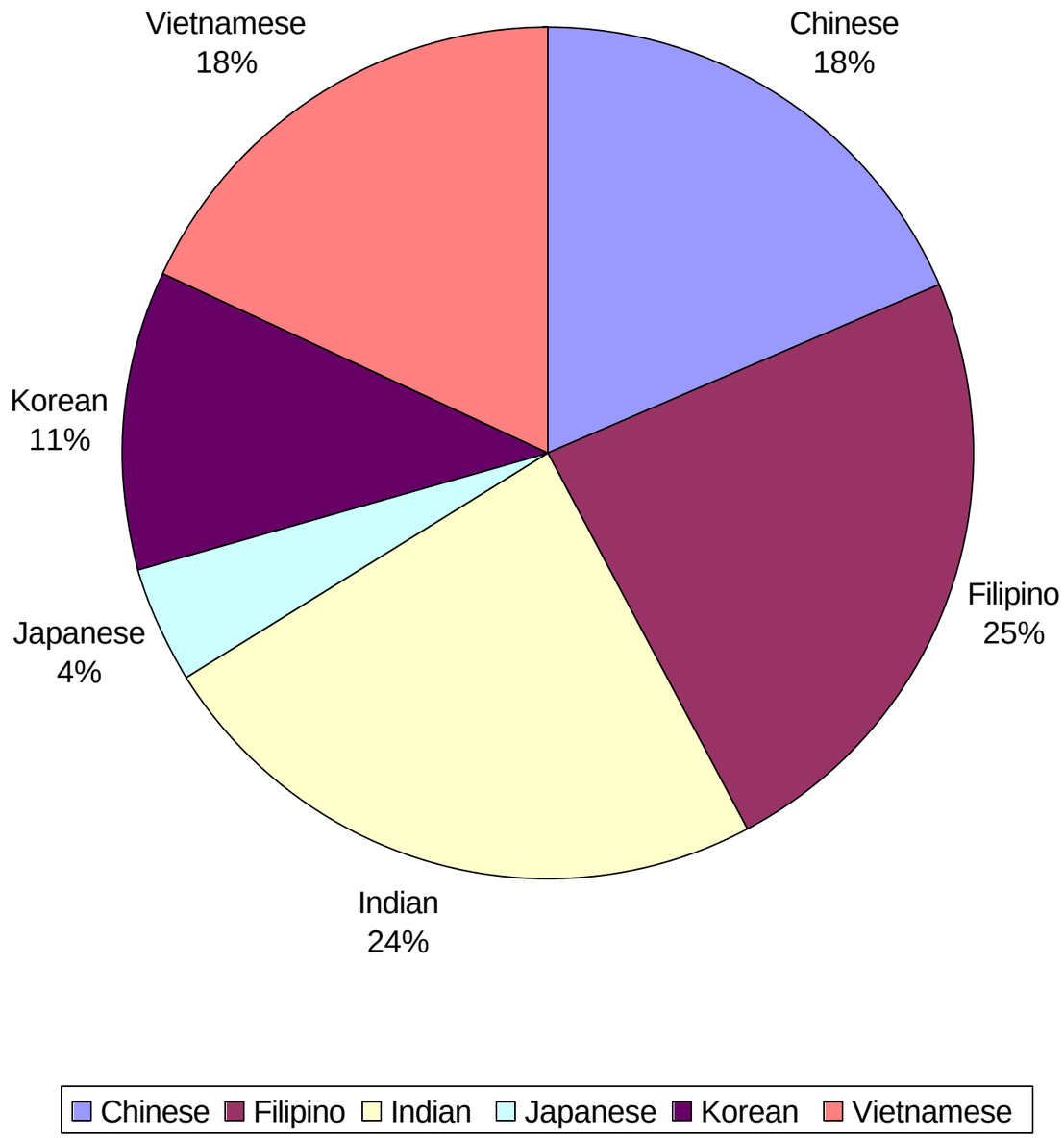

Fig. 2: English Language Ability and Hourly Earnings by Ethnicity for Foreign Born Asian Men in the US, 2000