

Employment and Earnings of Foreign Born Asian Men and Women in the United States, 2000

Employment and earnings are central indicators of labor market experience for both the native born as well the immigrant population (Raijman and Tienda 1999, Tubergen, Mass and Flap 2004). While differential labor market experiences for men and women in the United States (US henceforth) have been reasonably well documented (Bianchi 1995; Peterson and Morgan 1995; Cohen 2003), there has not been a comparable body of research for immigrants (Schoeni 1998).

With rising levels of immigration, an analysis of the various foreign born groups with regard to the gender differences in the labor market outcomes is imperative for a complete understanding of the relative position of men and women in the US labor market since immigrant women face a double disadvantage of being women as well as minority. However, research disaggregated by gender and countries of origin have been lacking, particularly so for foreign born Asians. It is well acknowledged that; a) foreign born Asians¹ are growing in number; b) Asian immigrants are economically and culturally a heterogeneous group and c) there is a substantial and increasing number of women immigrants from Asia.

In this paper, I investigate the employment prospects and earning profile of men and women belonging to the six major Asian immigrant groups, namely, Asian Indians, Chinese, Filipinos, Japanese, Koreans and Vietnamese and non –Hispanic whites relative to one another in the US for the year 2000.

Although, research regarding economic experiences of contemporary Asian immigrants disaggregated by their countries of origin and gender is limited, there have been a few studies. However, these studies have been limited in terms of either restricted to one of the gender

¹ I will be using foreign born and immigrants interchangeably all through.

⁴ Xie and Goyette's (2004) group of Asian Indians and also of all the other Asian groups includes US born persons as well, the so called 1.5 generation. That may not however substantially vary the statistic since Indians and the rest of the other groups, being relatively new, will expectedly, have the majority of their population as foreign instead of native born.

categories, men or women (Wong and Hirschman 1983; Woo 1985; Duleep and Sanders 1993) or focused on one immigrant group (Fang 1996; Sakamoto and Furuichi 2002). Further, the existing studies, including the ones that analyze all the major foreign born Asian sub-groups and are disaggregated by gender (Barringer, Takeuchi and Xenos 1990; Iceland 1999) are based on older data.

Employing the latest available data, this research aims to fill the gap in our understanding of Asian immigration by attempting to review and analyze the employment prospects and earning attainments of Asian immigrant men and women originating from the six major sending countries of China, India, Japan, Korea, the Philippines and Vietnam, relative to one another and to native born non Hispanic white, in what can be called ‘multiple–origin single destination’ comparative design (Tubergen, Mass and Flap 2004).

The analysis of labor force participation and earnings proceeds in the following way. The first section lays down the motivation for this study. The following section briefly reviews the existing literature. Section three discusses the theoretical framework. Section four describes the data set, variables and the sample.

I MOTIVATION

Why study the labor force experiences of Asian immigrant men and women?

Immigration, accounts for 60 percent of annual population growth in the US, has become a major component of population change, both directly through the arrival of new residents and indirectly through the child bearing of immigrants (Bean and Stevens 2003). Also, there has been a considerable change in the racial and ethnic composition of the immigrant population as well as the criteria of entry. As compared to the decades prior to 1960s, when over two –thirds of the arrivals were from European countries and Canada, by the 1980s, there were only 12.5 percent of the legal immigrants from Europe or Canada and the rest of the 84.5 percent came from Asia or Latin America. The foreign born Asian population, in particular, has become a group of substantial size in recent years with the increasing numbers from the six countries, China, India,

Japan, Korea, the Philippines and Vietnam. Further, with the implementation of the Immigration Reform Control Act of 1965, there are more people entering for family reunification purposes (Duleep and Sanders 1993).

Another factor that makes current immigration stream different from the one experienced in the period before the World War II is the increasing number of women immigrants. Not only do women immigrants from Asia constitute a noteworthy share of the entire immigrant population but their labor force participation and human capital endowments are comparable to their male counterparts for a majority of the groups (Refer to Tables 1 and 2). Additionally, immigrant men and women may have varying incentives and objectives of investing in the labor market (Long 1980; Wong and Hirschman 1983; Woo 1985; Borjas 1989; Zhou and Logan 1989; Barringer, Takeuchi and Xenos 1990; Beach and Worswick, 1993; Duleep and Sanders 1993; Schoeni 1998; Chiquiar and Hanson 2002). It is therefore worth exploring the role that gender plays and its interaction with the other standard variables (human capital, assimilation factors and personal characteristics) that influence labor market outcomes, especially given that most of the source countries have gender norms that are not essentially favorable to women.

Some of the other reasons which makes the inter –group and intra- group gender differences worth investigating are as follows.

First, there is a considerable amount of heterogeneity in the socio-economic statuses across the various Asian groups. The label of ‘model minority’ accorded to the aggregated Asian American community may not be applicable to all the six groups equally. A more appropriate characterization for the group appears to be, one of a ‘high average and a large dispersion’ (Zeng and Xie 2004, page 1076).

Second, considering, that both the extent of migration and skill selection of immigrants are associated with level of economic development and the political milieu of the source nations, the set of the six study countries provides an interesting mix. For instance, the recent decreasing rates of immigration from Japan may be attributable to the fact of Japan is an economic

superpower (Massey 1988). Also, there exists theoretical as well as empirical evidence showing that the more developed the source country is, the better economically integrated are its people in the US labor market. They have better than average human capital (such as educational attainments and familiarity with the language of the destination country) and better transferability of skills and hence better subsequent rewards relative to migrants from poor countries (Chiswick 1978, 1979; Borjas 1987, 1988; Jasso and Rosenzweig 1990; Freidberg 2000). The experiences of some of the Asian groups corroborates with the above thesis while it does not in case of others. Indians, for instance, in this context, provide a contrary example to the expected relationship between the level of development of the source country and the economic incorporation of its people. India is one of the poorer countries in the group, but foreign born Indians are performing at levels comparable to their counterparts from more developed countries of Asia (Barringer, Takeuchi and Xenos 1990; Xie and Goyette 2004⁴). The latter is plausibly a reflection of the ‘selection bias’ among the Indian immigrants (Feliciano 2005); disproportionately upper class Indians migrate to the US. The role of selection effects in influencing the position of the immigrants from different nationalities has been emphasized by other experts (See Borjas 1994 for a comprehensive review).

The political condition in the source countries arguably also influences the skill selection of the immigrants. This is so because political instability and/or suppression may influence people to emigrate for reasons other than the ‘pure’ economic ones (Chiswick 1978, 1979, 1999; Tubergen, Mass and Flap 2004). Thus, refugees are less favorably selected than those who migrate to take advantage of economic avenues that employ their human capital better in the destination country relative to their country of origin. Following, the above reasoning, in my sample of six countries, immigrants from Vietnam should perform less favorably than the rest⁵.

⁵ There are however studies which report contrary findings. Borjas (1989) provides an explanation for such (contrary) results in terms of income maximization hypothesis. Change/s in political regime/s of the immigrants’ source countries results in the devaluing of skills and therefore their worsening off. However,

The few past studies that focus on Vietnamese as a separate group indeed find higher rates of unemployment and lower earnings among the Vietnamese (Barringer, Takeuchi and Xenos 1990; Lee and Edmonston 1994; Schoeni 1998; Xie and Goyette 2004) than the other Asian groups.

Third, an interesting pattern has been observed with some (Asian) groups. Koreans, Chinese and Japanese have been able to establish ‘ethnic economies’ where both the employees and employers belong to the same ethnic community (Bonacich and Modell 1980; Light and Karageorgis 1980; Light and Bonacich 1988; Zhou and Logan 1989; Schoeni 1998). Self employment is an intriguing form of labor market engagement since it has been shown to be both a safety net for those with low human capital as well as an escape from discrimination for those with high human capital (Raijman and Tienda 1999). Several studies have documented large differentials in self employment rates among the various groups. The six groups, therefore, vary with regard to both the *processes* and *outcomes* of labor market participation.

Fourth, while the above arguments put forth a push factor (for immigration), there is a co-existence of a strong pull factor too. The post-industrial stage of economic development of the US after 1965 provides an overwhelming evidence of how the labor demand in the destination country shapes the quantity and quality of immigrant flow. This is particularly true for the period between 1996 and 2000 when the US economy generated 1.1 million more jobs per year than it would have needed to accommodate population growth at existing levels of employment. One source of filling of those ‘excess’ jobs, was provided by immigrants, both high tech and low skilled workers (Bean and Stevens 2003). Further, the ‘hourglass’ structure of the US economy (with expanding opportunities in both high and low end occupations but not the middle level) affects the employment and earnings mobility of the immigrants, especially that of the new arrivals (Zhou and Bankston 1998; Bernhardt et.al 2001). Since this was also a period when the foreign born Asian population grew in the US, it is interesting to examine the variation and/or

their ability becomes valuable again once they migrate to a market economy, thus in some ways rendering the distinction between ‘economic’ and ‘non –economic’ migrants redundant.

similarity in the response to this labor demand (in the US) across the six groups as reflected by employment and earnings in 2000.

II Theoretical Framework and Research Questions

The theoretical framework adopted in this study attempts to situate gender into the most commonly used theoretical perspectives to explain labor market outcomes, namely human capital and assimilation approaches. In case of Asian immigrants an additional theoretical perspective which mainly draws upon the cultural arguments is that of, ‘model minority’. I briefly explain each one of them.

Traditionally, the economic experiences of immigrants has been situated in the micro-economic human capital framework which derives its roots from the macroeconomic theories put forward by Lewis (1954), Ranis and Fei (1961) to explain internal labor (and by extension capital) flow from labor abundant to labor scarce regions. The classic push –pull theory proposed by the sociologist, Evert Lee (1966) which says that immigration occurs due to a rational calculation on the part of the individuals, has also been a strong influence in understanding international migration.

The micro-economic human capital framework, argues that individuals are rational actors and the positive decision to migrate is based on an expected positive net return from migrating. International migration is conceptualized as form of investment in human capital (Sjaastad 1962). Individuals choose to move to a place where the returns on their educational attainment and skills are maximized but before that happens they need to undertake certain costs which include both the material cost of travel, effort involved in learning new language and skills, adapting to an alien labor market and the psychological cost of homesickness, distance from ones loved ones, and so forth (Todaro and Maruszko 1987). Thus, individuals estimate the costs and benefits of moving to international locations and migrate to where the expected discounted net returns are greatest over some time horizon (Borjas 1989 and 1990).

The dominance of the individual-based, human capital approach was challenged by sociologists⁶ who argued that individualistic approaches fail to capture the influence of structural macro level factors that influence the economic performance of immigrants. These structural factors can be in the form of the way the inherent dualism between labor and capital plays to create segmented labor market (Piore 1979) or the kind and quantity of labor demand created by the expansion of the markets within a global political hierarchy (Morawaska 1990;Portes and Walton 1981; Petras 1981; Sassen 1988) or the role played by social capital in initiating and continuing the migration streams (Massey 1987; Massey and Espana 1987; Massey 1990; Portes and Sensenbrenner 1993) or the level of economic development of the source countries (Massey 1981).

Another significant theoretical contribution by sociologists⁷ to understanding the economic life of immigrants in the US is the assimilation theory. The centrality of assimilation for the study of immigration dates back to the work produced by Chicago School scholars like Robert E. Park and W.I.Thomas and their collaborators and students (McKee 1993). Milton Gordon (1964) provided a systematic dissection of the concept of assimilation as a unilinear process following various stages beginning with cultural assimilation (in terms of norms, values, language) and subsequently resulting in socio-economic assimilation (in terms of educational attainment, income). This thesis of ‘straight line assimilation’ has been challenged by theories of ‘ethnic disadvantage’ (Glazer and Moynihan 1963; Portes and Bach 1985; Portes and Zhou 1993 and Portes and Rumbaut 2001) and ‘segmented assimilation’ (Portes and Zhou 1993; Portes and Rumbaut 2001; Zhou 1999) which argue that complete assimilation (with the majority) cannot take place because of structural discrimination and even if it does take place, it may happen only

⁶ It may be noted that assumptions and conclusions of neo –classical theory have been challenged by economists too (Stark and Bloom 1985) and the argument is that decisions to migrate (or accordingly not to migrate) are not a function of an individual choice but rather an outcome of decisions made within the larger units of inter-related people.

⁷ Economists too emphasize assimilation but more in terms of ‘skill’ assimilation within the human capital framework.

in some arenas. Thus the theoretical perspectives advanced by sociologists situate the study of economic outcomes of immigrants as an individual attainment process within a structural framework.

Another perspective which particularly applies to Asians in the US is that of their characterization as a ‘model minority’⁸. The model minority thesis draws upon the cultural arguments that success of Asians is attributable to positive work ethic, motivation, adherence to values of ambition and persistence (Hirschman and Wong 1984). More stable family structures are also cited as indication of adherence to cultural values that lead to success (Waters and Eschbach 1995).

This image of model minority has however been challenged on mainly two grounds; a) the heterogeneity among the groups and b) discrimination experienced by the groups. While some of the Asian groups have reached near parity (economically) with native born white, the poverty rates of Asian Americans is twice as compared to the native born white (Iceland 1999). Thus, high earning Asians co-exist with those who work under miserable conditions with minimum wages (Zhou and Logan 1989). Many scholars therefore find the ‘model minority’ characterization of Asian Americans objectionable since it masks the inter-group disparity (Hurh and Kim 1989).

Gender Dimension

How is the gender aspect of migration situated in the above theories? According to the standard human capital theory, women’s incentives to invest in their human capital will be adversely affected if they do not expect to spend a substantial part of their adult life in the labor market (Mincer and Polachek 1974). This may indeed be the case, given that women tend to be in the role of ‘secondary earners’ because of the patriarchal norms and gender linked differences with regard to the available opportunity set (Cerrutti and Massey 2001). The ‘family investment

⁸ The phrase ‘model minority’, coined by sociologist, William Peterson in 1966, gained popularity since the publication of a story headlined, ‘Asian Americans: A ‘Model Minority’’ in *Newsweek* in 1982 (Kitano and Daniels 2001).

model', a variant of the human capital framework to explain gender differences in labor force participation argues that women work upon arrival mainly to provide the liquidity in the human capital investment that their male partners engage in (Baker and Benjamin 1997). The family investment model therefore does not predict a long term association of women in the labor market and hence a lack of an incentive for high level of human capital investment on their part. These findings have however not been found consistent across countries. For instance, Blau et.al (2003) show that for immigrant families in the US, both women and men invest in their human capital.

Studies using the assimilation framework have found that longer stay in the country leads to higher rates of labor force participation among women reflecting either a 'cultural assimilation' (Reimers 1984) or 'skill assimilation' (Chiswick 1980) or both. A period of assimilation can be expected to be particularly important for people who are coming from as culturally diverse settings as Asians come from (Duleep and Sanders 1993). According to the cultural hypothesis, group variations in female labor participation may persist even after controlling for all the measurable characteristics.

Demographic attributes like marital status and presence of young children influence women's labor force participation much more than men's and that influence stems more from the cultural norms and values. The relationship between marital status and labor force participation of women, in general, has been a subject of investigation by many scholars (Oppenheimer 1997). Studies on foreign born Asian married women show that their labor force participation depends on the 'whether she has a husband who invests in skills specific to the US labor market and also by the extent of that investment' (Duleep and Sanders 1993, page 677). The presence of children impacts women's economic activity, sometimes characterized as the 'wage penalty' (Budig and England 2001). Children enhance the competition that women have to face between their roles as caregivers and employees. Cultural aspects of family formation like the willingness to live in extended families also affect the women's labor force participation (MacPherson and Stewart 1989).

In broad terms, the research questions that this paper investigates are as follows; a) what are the disparities and similarities among the men and women aged between 25 and 65 who are Chinese, Filipino, Indian, Japanese, Korean and Vietnamese with regard to their human capital, assimilation factors, demographic attributes and the prospects of employment and earnings, relative to one another and to native born non Hispanic white in year 2000?; and b) to what extent can these inter-group similarities and differences be explained by the differences in human capital, assimilation factors and personal/family attributes?. The specific aims include; a) to document the socio-economic profile by ethnicity

b) to examine the associations between human capital variables (years of education, work experience and English language ability), assimilation factors (duration of stay in the US and citizenship status) and demographic characteristics (marital status, number of children below age five) with the employment prospects and earnings profile of foreign born and how they compare with the native born non Hispanic white for men and women within each group and across groups, both descriptively and analytically.

Following the discussion of the central theoretical perspectives in the earlier section; the human capital theory argues that higher level of individual skills mean higher economic outcomes (for the foreign born), while the assimilation and the model minority thesis contend that owing to

the presence or lack of certain structural factors, skills may not have the ‘pay off’ for the immigrants that they do for the natives.

I hypothesize the following. If gender differences among groups do not exist then women with similar levels of human capital, assimilation factors, marital status, and number of children below the age five should experience similar economic profile. Similarly, if gender norms do not discriminate against women, the effect of gender should disappear after controlling for the above listed factors.

III DATA, VARIABLES and SAMPLE

Data

The data set that I use for my analyses is the one percent and five percent state sample Integrated Public Use Microdata Series (IPUMS) of 2000 Census. The one percent sample is used for obtaining the sample for native born white where as the five percent sample is used for the rest of the immigrant groups. The 5 percent state sample 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 and gender).

Variables

Dependent Variables

I choose three dependent variables; the likelihood of employment, likelihood of full time –year employment and earnings since these are arguably the principal indicators of labor market outcome along with a host of independent variables. A catalogue of the description of the variables is presented in Appendix 1.

My measurement of the dependent variables, employment, full time –year employment and earnings are as follows.

²⁶ Immigrants may be having higher earnings because of working longer hours.

The sample for the measurement of the employment variable is all non-institutionalized out of school men and women age 25-65. I include people who report to be 'not in the labor force' too in the sample used for measuring the employment variable. A person is not in the labor force if he/she 'does not operate any farm or business; does not have a job; does not work for pay; is not an unpaid family worker; and is not looking for or available for work'. The bulk of the category ('not in labor force') is comprised of full-time homemakers, retirees, students who have no other occupation, people permanently unable to work, and people who simply choose not to work. This includes formerly unemployed persons who have given up seeking work i.e., 'discouraged workers'. Since my sample consists of those aged 25 between 65, thus excluding most of the retired population, I expect many of those who are not in labor force to be involuntary or 'discouraged workers'. This may be true for women too, given the high employment rate among foreign born women.

Census classifies employed persons as 'employers', self-employed persons', 'employees' and 'unpaid family workers'. Employed person is anyone who worked atleast one hour for pay or profit during the reference week which is the week previous to the date of survey. According to the census definition, therefore, it is possible for a person who is unemployed during the reference week but has been working otherwise during some part of the year, to be classified as unemployed. The reference period for ascertaining earnings is however the year previous to the date of the survey. Since my objective in the present analysis is to predict earnings for those who are employed. I need to correct for this discrepancy in the reference period between employment and earnings. I therefore modify the measurement of both the employment variables in a way that they measure the employment status during the past year and not week.

Earnings refer to the sum of wage income, non farm self employment income and farm self employment income of people who are employed.

Likelihood of employment

0 = not employed, has worked for negative or zero usual weekly hours and has zero or negative

earnings in the year prior to the date of the survey

1 = employed, has worked for positive number of usual weekly hours and has positive earnings during the past one year to the date of survey

Likelihood of full time –year employment

1 = full time- year employed, employed as per the definition laid out above and worked 48 weeks or more and 35 hours or more usual hours during the year previous to the date of survey

Full time –full year employed = 0 otherwise

I employ the above definition since both hours as well as weeks worked are both critical for determining earnings (Zhou 2004).

Log of Hourly Annual Earnings

I make the following transformations to the earnings variable; a) take hourly instead of annual earnings²⁶ and b) convert into the logarithm form. IPUMS gives information on number of weeks worked in the last one year and the usual hours worked per week during the last one year.

I generate my dependent variable, ‘hourly income earned’ in the following way;

Hourly Income Earned = Income earned / Weeks worked * Usual weekly hours

It may be noted that by construction, I exclude those who have negative or zero number of weeks worked and zero number of usual hours worked in a week during the previous year.

I subsequently do a log transformation of the generated variable, ‘Hourly Income Earned’.

Independent variables

The independent variables that I plan to use for the regression analysis can be classified under the following categories;

1) Human capital – Human capital variables relate to acquired skills, years of education (US and home country), work experience (US and home country) and English language fluency.

2) Assimilation assets - Assimilation factors are measured by duration of stay and

citizenship status.

3) Demographic characteristics – These include demographic characteristics like marital status, number of children below the age of five years.

My measurement of human capital resonates with the one that has been commonly employed in the literature; years of education, English language ability and work experience.

While years of education is key to explaining immigrant economic experience, interest in the educational attainments of immigrants is further generated by the fact that many recent immigrants have little education (Bean and Bell –Rose 2003) and are therefore experiencing low wage growth²⁷ (Chiswick 1986; Duleep and Regets 1996; Duleep and Dowhan 2002). A trend of educational attainments that has been observed, is that while the concentration of highly educated persons among immigrants is the same as the natives, the number of foreign born with low educational attainment has increased, relative to natives. Given that the educational impacts on employment and earnings are enormous, it is imperative to investigate the educational distribution patterns of men and women belonging to all the six Asian nationalities.

I include English language as one of the components of human capital since repeated research in this area has pointed towards the significance of language in determining earnings both directly and indirectly through improving educational attainments (Bean and Stevens 2003). It has been shown using the decennial census that immigrants in the United States who are proficient in English earn more than immigrants who have not mastered the English language (Chiswick 1991; Chiswick and Miller 1999). There is a substantial variation in the English language ability of the six Asian immigrant groups.

Work experience or rather potential work experience is a commonly used independent variable that is supposed to affect all the labor market outcomes that are being considered here, though perhaps earnings more than labor force participation. The rationale of the relationship is

²⁷ This trend has been attributed to the shifting of the entry criteria from national origins quota to family reunification.

that greater number of years in the labor force means greater knowledge of the labor market strategies, acquisition of the firm specific skills.

The indicators of assimilation include length of stay (in the US) and citizenship status. In other words, immigrants who are in US longer and are citizens should have a greater likelihood of employment and higher earnings and than those who are not.

In addition to the human capital and assimilation factors, I add the demographic attributes such as age, marital status, and number of children below the age of five years. Immigrants who are younger are supposed to more amenable to acquire the new skills and norms required in the destination country. Language acquisition abilities are also higher at younger rather than later ages.

Characteristics such as marital status and the number of young children are associated with a worker's employment and earnings. Both the general theoretical literature on labor force participation and the inter-personal network theories of immigration emphasize the association between marital status ('marriage matters', Waite 1995, page 483) and responsibility of children ('wage penalty' experienced by women) on the labor force outcomes. There is evidence that for the 'same level of schooling and place of residence', married men experience higher earnings as married men tend to have higher labor force participation rates, invest more in human capital and have better health than men who are not married (Chiswick 1978). Also, there is evidence of employers having a preference for married men²⁹ (Roos 1990).

Despite the endogeneity³⁰ between marital status, number of children with level of education and subsequently earnings, I include marital status as an independent variable. I do this

²⁹ Gender specialists have argued that there is a gender difference in the preference by marital status. While married men are preferred by employers, same is not the case with married women.

³⁰ A pioneering work on immigrant earnings relative to native born done by an economist, models marital status as an independent variable (Chiswick 1978).

especially to assess the differential association of these variables on men and women as most of the theoretical and empirical evidence indicates.

In the following paragraphs, I lay out an operational description of the independent variables.

Human Capital

Total Years of education – The education related variable in the IPUMS indicates the respondent's highest level of educational attainment. Persons, who are educated in a system other than the US, were asked to estimate the equivalent of their educational attainment in the US educational system.

Work experience – Unfortunately, the Census does not ask any question about the length of the time spent in the labor market by the person. Also, the questions on work experience etc. are only related to the past one year. Thus I propose to use an approximation which is similar to one that is most commonly in the literature. The approximation is age – years of schooling that a person has received – 6. It may be noted that this approximation is particularly problematic for women who more likely to not have a steady association with the labor market. The work experience coefficient in case of women therefore captures both the effects of education as well as the depreciation of skills that occurs during the periods when one is out of the labor force (Mincer and Polachek 1974). To account for this approximation, experts have suggested including variables such as number of children ever born, number of young children and marital status in the earnings equation of women (Oaxaca 1973; Gramm 1975; Smith 1976).

³³ It may be noted that information so obtained may be ambiguous depending on when the person perceives himself/ herself to have come to live. The ambiguity gets enhanced where the levels of return migration and multiple entries are high (Redstone and Massey 2004). This may not be so much a characteristic of the immigrant groups considered in this case, yet the imperfection of the measure (of duration of stay cannot be ruled out). Despite the shortcomings, I use the variable, YRSUSA1 and its variants owing to the lack of a better indicator.

Years of education, a constituent of the variable ‘work experience’ is an approximation too as it is not directly available for the year 2000. I will have to rely on the variable EDUC99 which gives the highest level of educational attainment by categories which fortunately are not highly aggregated, though for higher levels of education like doctorate degree, the approximation may be more.

Again following the basic framework of past studies (Kalmijn 1996; Dadoo 1997), I approximate the years of education in the following manner;

- 0 years = no school, nursery school and kindergarten
- 2.5 years = grades 1 to 4
- 6.5 years = grades 5 to 8
- 9 years = grade 9
- 10 years = grade 10
- 11 years = grade 11
- 12 years = 12th grade, no diploma and high school graduate
- 13 years = some college, no degree and associate degree, occupational program
- 14.5 years = associate degree, academic program
- 16 years = bachelor’s degree
- 18 years = master’s degree
- 22 years = professional, doctorate degree

English language ability – The variable in the census indicates both whether a respondent is able to speak English and whether he/she is able to speak English well. The information is self reported. The categories for which the data is collected are; ‘yes, speaks only English’; ‘yes, speaks very well’; ‘yes, speaks well’; ‘yes, but not well’; ‘does not speak English’.

Assimilation Assets

Duration of stay – There are three variables that give information about the length of stay; the year in which a foreign-born person first entered the United States), the number of years in the US and the number of years in the US in intervals. The census question asked to get the response to this variable is ‘when did this person come to live in the United States?’³³. I use the variable that provides the number of years in categories³⁴.

³⁴ In some preliminary tabulations, using the alternative variables, YRSUSA1 and YRSUSA2, I got better results using the categorical version, YRSUSA2.

Citizenship status – This information, on citizenship status is collected of all the people who are not US citizens at birth and therefore excluding native born white. The categories available are; ‘not applicable’, ‘born abroad of American parents’; ‘naturalized citizen’; ‘not a citizen’; ‘not a citizen but has received the first papers’ ‘foreign born, citizenship status not reported’.

Demographic Characteristics

Marital status – Each person’s current marital status is provided. I recategorize the variable in the following manner; ‘married’ and ‘single’. The category ‘married’ corresponds with ‘married, spouse present’ in the original categorization. The original categories of ‘married, spouse absent’, ‘divorced’ and ‘widowed’ and ‘single’ are added to obtain the category, ‘single’. ‘Married’ is the reference category.

Number of children below the age of five – The information on the number of children that age four or below and are the person’s his or her own living with him or her in the same household.

Sample

Following the standard practice of the labor force literature, I include all non – institutionalized men and women in the age group of 25-65³⁶ who are not enrolled in school and are born in China, Philippines, India, Japan, Korea or Vietnam and self identify themselves as Chinese, Filipino, Indian, Japanese, Korean or Vietnamese respectively.

In the case of the regression analyses, the samples are as follows. In case of employment as the dependent variable, the base consists of the entire sample, that is, all non-institutionalized men and women who are not in school including those who report to be ‘not in the labor force’.

³⁶ It may be noted that depending on the specific goal of the study and the data set employed, there is a variation in the age group selected for examining the economic outcomes. The sample age ranges from 16 to 64 (Chiquiar and Hanson 2002), 20-64 (Koussoudji 1988), 25 to 44 (Zeng and Xie 2004), 25 to 54 (Tubergen, Mass and Flap 2004), 25 to 60 (Duleep and Dowhan 2002), 25 to 64 (Barringer, Xenos and Takeuchi 1990; Chiswick 1978, Chiswick and Miller, Dodoo 1997; Hirschman and Wong 1984; Zhou and Logan 1989), 25 to 65 (Duleep and Sanders 1993; Friedberg 2000), 20 to 64 (Green 1999).

In case of the regression with the dependent variables, full time –year employment and log of annual earnings, the base is all those who are employed.

Full time–year employment variable potentially entails a smaller sample since it includes individuals who report having worked 48 or more weeks and 35 or more usual weekly hours during the previous year. In case of the (ordinary least square) regression with log of hourly annual earnings as the dependent variable, the sample is restricted to all those who are employed and report positive hourly annual earnings. I delete the observations who report zero or negative earnings. Thus by construction, the sample for the variables, employment and log of annual hourly earnings is the same.

Tables 1 to 3 provide some preliminary descriptive results.

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Appendix 1

Dependent and Independent Variables and their Description

Variable	Census Codes	Recodes
Dependent		
Employment status	Employed Not Employed	0 = unemployed, not worked for positive number of usual hours in a week and positive number of weeks. (Reference category) 1 = employed, worked positive number of weeks and positive number of usual weekly hours during the year previous to the date of the survey.
Full time –Full year Employment status	Does not exist	1 = employed and have worked 48 or more number of weeks and 35 or more number of usual weekly hours during the year previous to the date of the survey.
Log of Hourly Annual Earnings	Does not exist	Created by using the variables, income earned, number if weeks worked and number of hours worked per week in the year previous to 2000 In US \$ at 1999 prices (values >0)
Household Income	In US \$ at 1999 prices	In US \$ at 1999 prices (values >0)
Independent		
Educational Attainment	Not applicable No school completed Nursery school Kindergarten 1 st -4 th grade 5 th -8 th grade 9 th grade 10 th grade 11 th grade 12 th 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 12 th grade and 12 th 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)
English Language Proficiency	Does not speak English Speaks only English Speaks English very well	Does not speak English Speaks only English, speaks English very well (Reference Category)

	Speaks English well Speaks English, but not well	Speaks English well Speaks English, but not well
Work Experience	Does not exist	In years derived from age and years of education Age – years of education - 6
Full time employment status	Does not exist	0 = not full time employed, that is if the person has worked in the capacity of an employer, employee or as a self employed for less than 40 hours during the week previous to the date of the survey. (Reference category) 1 = employed, that is if the person has worked in the capacity of an employer, employee or as a self employed for 40 or more hours during the week previous to the date of the survey.
Duration of stay	Not applicable 0-5 years 6-10 years 11-15 years 16-20 years 21 years and above	Not applicable (Reference category) 0-5 years 6-10 years 11-15 years 16 and above years
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 that includes the categories 'single', 'married with spouse absent', 'separated' 'divorced' and 'widowed'
Number of children below the age of five	Number of children below age five	Number of children below age five

