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Hispanics in the U.S.: Evidence from  
Panel Data**

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Federal Reserve Bank of Chicago or the Board of Governors of the Federal Reserve System**

## **The Occupational Assimilation of Hispanics in the U.S.: Evidence from Panel Data**

**Maude Toussaint-Comeau**

### **Abstract**

*This study investigates whether Hispanic immigrants assimilate in occupational status with natives and the factors that determine occupational status. A theoretical framework is proposed that models occupational status and convergence of Hispanics relative to U.S.-born non-Hispanics as a function of human capital and demographic exogenous variables, U.S. experience (assimilation effects) and periods of migration (cohort effects). In addition, the model also controls for aggregate economic conditions and location effects. The empirical testing is based on a random effects model estimation procedure to accommodate the longitudinal PSID panel data used in the analysis.*

*The results suggest that length of time resided in the U.S. narrows the occupational gap between Hispanic immigrants and non-Hispanic Whites and U.S.-born Hispanic counterparts. The level of individuals' human capital affects the rate of occupational mobility and determines whether convergence occurs in occupational status. Mexican immigrants with low human capital start in occupations with relatively low status and they do not experience much occupational mobility. Their occupational status does not converge with that of non-Hispanic or U.S.-born Hispanic counterparts. However, Mexican immigrants with high human capital experience occupational mobility, and catch up with non-Hispanic Whites after 15 years and with U.S.-born Hispanics after 10 years of working in the U.S.*

### **I. Introduction**

Hispanic immigrants constitute a sizable and growing segment of the U.S. labor force, yet research suggests they are among the most economically disadvantaged workers in the nation.

Hispanic immigrants' wages have been declining since the 1980s relative to those of natives (Reimers, 1997; Rivera-Batiz, 1994; Chiswick, 1986). Borjas (1995) noted that the wage decline experienced by the Hispanic immigrant population contributed to the decline in the wages for all immigrants observed during that period. Orrenius and Zavodny (2003) also noted that, following the 1965 Amendment to the Immigration and Nationality Act, the inflow of less-skilled immigrants, including Hispanic immigrants, has led to the decline in real wages and rising

unemployment among less-skilled natives in the 1970s and 1980s.<sup>1</sup> Therefore, the skills of Hispanics and their potential implications remain a subject of intense debate (e.g., Borjas, 1985; Duleep and Regets, 1992; LaLonde and Topel, 1991; Chiswick, 1978).

Most previous researches have considered earnings to make inferences about the skills composition of Hispanics and very few have looked at occupations. Occupation is however as important a measure of the skill sets of individuals that convey the socioeconomic status of workers. The occupational attainment of immigrants is an inherent part of their socioeconomic adjustment. Initially immigrants may have an occupational disadvantage because they lack knowledge on how to find employment, or their pre-migration skills may not be fully transferable. But with a longer stay in the U.S. and more investment in U.S.-specific skills, their socioeconomic status is expected to improve and resemble more closely that of natives', a process known as *assimilation*.

The objective of this research is to determine the factors that affect differences in occupational attainment of Hispanics and to test the hypothesis that occupational assimilation occurs overtime for Hispanic immigrants. The results of a random effects model suggest that, consistent with the assimilation hypothesis, the length of time resided in the U.S. narrows the occupational gap between Hispanic immigrants and non-Hispanic Whites and U.S.-born Hispanic counterparts. However, the level of individuals' human capital affects the rate of occupational mobility and determines whether convergence occurs in the groups' socioeconomic occupational status. The occupational status of Mexican immigrants with low human capital does not converge with that of non-Hispanic counterparts. However, those with high human capital

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<sup>1</sup>The 1965 Act established a system under which visas were allocated mostly to applicants with relatives residing in the United States. Prior to the 1965 amendment, visas were granted on a quota system based on national origin. Immigrants from Europe, however, had no restriction on the number of visas they obtained.

experience a sharp rise in occupational status throughout their stay in the U.S., and eventually catch up with non-Hispanic Whites and U.S.-born co-ethnics.

The next section provides an overview of the literature. Section III describes the data. In Section IV, a theoretical framework is proposed. The results are presented in Section V. Section VI concludes with the implications of the findings.

## **II. An Overview of the literature**

Researchers have proposed several theories to explain why individuals or groups of individuals, such as immigrants, select and change jobs. These theories can provide some insights as to the reasons why we may find that Hispanics are at an occupational disadvantage and the extent to which they may or may not assimilate in their occupational profile. These theories include the human capital accumulation and assimilation, cohort quality, labor market segmentation, and economic restructuring.

A recurring theme in research about the Hispanic population is that they tend to be in occupations with lower economic status than U.S.-born individuals because they have less human capital (lower educational attainment, less U.S. labor market experience, and greater English language deficiency (Stolzenberg, 1982)). Research shows that individuals' human capital characteristics, such as education and work experience are both expected to promote occupational mobility in the labor market. These characteristics provide a positive signal to employers as to the ability of workers to assume greater responsibilities within an organization. They allow the individual to have greater access to information about job opportunities. The ability to speak English is also an important human capital characteristic that affects access to certain occupations. Kossoudji (1998) noted that occupations tend to be heterogeneous in their use of language and, consequently, the contribution of language to productivity varies by

occupation. For example, in occupations that have traditionally been held by immigrants, employers are less likely to screen out those with a lack of English knowledge. This may partly explain why Hispanic immigrants tend to cluster in relatively few occupations—those who are not fluent in English are likely to be concentrated in occupations that require relatively lower human capital/skills. By the same token these occupations tend to provide lower incomes and have more limited opportunities for advancement.

Whether or not one is an immigrant affects the extent to which one experiences occupational mobility. Initially, immigrants tend to have an occupational disadvantage because they lack knowledge on how to find employment, or their pre-migration skills may not be fully transferable to the U.S. labor market. As they gain experience in the U.S., and invest in U.S.-specific human capital skills, their socioeconomic status tends to improve. Eventually, their occupational profile may resemble that of the natives—a process referred to as occupational assimilation. For example, suppose that at the time of entry the typical Hispanic immigrant does not have the complement of skills that are valued in the U.S. labor market—these skills include education, the required license or certification, English language proficiency, an understanding of how the U.S. labor market operates, and U.S.-specific labor market experience. As such, the immigrant must take a lower level or a lower status occupation while he/she builds U.S. labor market specific human capital. As the immigrant assimilates into the country and reaches ‘information parity’ with natives, he/she tends to move into occupations of higher status or occupations more similar to those of natives.

The extent to which an immigrant experiences occupational assimilation depends on the “skill set”, ability, and incentives of the immigrant to gain U.S.-specific skills. For example, an educated immigrant from Mexico is expected to quickly gain U.S. specific skills (e.g., it is easier to learn English if one is already educated), and as such is expected to move up the occupational

ladder. On the other hand, an immigrant with less education (e.g., a Mexican farmer) is likely to experience a more limited upward occupational mobility because the accumulation of U.S. specific skills may be relative harder (e.g., it is more difficult to learn English when one has very little pre-migration education, and one has little incentive to do so if one arrived in the U.S. at an older age).

Chiswick (1977) develops a model of occupational mobility to predict the likely occupational profile of immigrants over time in the host country. The underlying assumption is that skills are not perfectly transferable across countries. After migration, immigrants make investments to complement their pre-migration skills that increase transferability in the destination country. The investments encompass the acquisition of labor market information, destination language proficiency, occupational licenses, or other task-specific skills. Subsequently, immigrants tend to experience an occupational trajectory that follows a U-shaped pattern. The downward-sloping portion of the pattern is due to the fact that, initially, they experience a decline in their occupational status relative to their pre-migration occupational status (e.g. a doctor from Mexico without a medical license). The steeper the initial decline, the steeper will be the subsequent increase for a highly-skilled immigrant from a country of origin that is dissimilar (e.g. in language) to the host country. Immigrants from countries that are similar (e.g., in quality of education, closeness of language spoken, and parity in economic development level) are likely to have a shallow U-shaped occupational status curve, since their pre-migration skills are more transferable. The occupational profile of immigrants with very low skills will also be depicted by a shallow U-shaped curve, since they are likely to find it very costly to acquire high skills—an example being, unskilled farm laborers from Mexico who are likely to remain unskilled workers in the United States. Their occupational profile will be depicted by a shallow U-shaped curve. Refugees (this would be the case for Cubans) tend to be

individuals with skills (e.g. generals, judges). They are expected to have a fairly steep improvement in skill acquisition after a steep initial decline in their occupation status.<sup>2</sup>

Borjas (1999) proposes a human capital production function to model the post-migration rate of skill acquisition, which can be related to the occupation or skill profile of immigrants in the host country. Put in his terms, immigrants have  $K$  numbers of efficiency units acquired in the source country. He also assumes that human capital is not perfectly transferable across countries. The less-than-perfect transferability implies that the immigrant, initially (during the investment period in a two-period model), devotes a fraction of his efficiency units to the production of additional human capital. Highly-skilled immigrants are more able to acquire additional human capital skills because there is greater "complementarity" between pre-migration and post-migration human capital. On the other hand, because the costs of human capital investment are mainly forgone earnings, having high initial skills makes it more expensive to acquire additional skills. This "substitutability" effect suggests that high-skilled individuals may choose not to augment their human capital skills. Consequently it is theoretically ambiguous the extent to which highly skilled immigrants may improve their occupational profile.

It is worth noting that both Chiswick and Borjas assume that the assimilation process to be the convergence between immigrants and the U.S.-born natives. However, Lalonde and Topel (1991) argue that because immigrants and natives are so different, assimilation should be construed to occur simply when "the skill of an immigrant cohort rises with time spent in the United States." Therefore the immigrant group himself becomes the base or comparison group, as opposed to natives

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<sup>2</sup> Using a longitudinal survey of recent immigrants in Australia, Chiswick et al. (2002) using data that provide information on pre-migration occupations, found support for these hypotheses.



The Cohort Quality model (Borjas, 1995) identifies that there are differences between immigrants and native populations. This model also suggests that there are differences between groups, or cohorts, of immigrants. It is possible that immigrants who entered the U.S. at a particular time period, 1950 for example, had significantly higher skills or a more acceptable or transferable skill set than other immigrant cohorts. If this is the case, then the path of occupations and wages for this group will be different than the path of occupations and wages for other cohorts. According to Borjas (1995), the low wages experienced by Hispanics in the 1980s can be explained by the lowering in the “quality” of successive immigrant cohorts.<sup>3</sup>

The extent to which immigrants assimilate can depend on the host country’s immigration policy vis-à-vis the types of skills that are required for the immigrants as conditions for entry. For example, Richmond and Kalbach (1980) note that in a context where the host country’s immigration law requires that new immigrants be endowed with specific skills as pre-conditions for admission into the country, immigrants would have an occupational distribution that remains dissimilar to that of the natives. They suggest that in Canada, this may explain why immigrants are relatively over-represented in professional, semi-professional and manufacturing occupations and under-represented in primary and transportation occupations. Green (1999) finds that, immigrants who are assessed based on their skills tend to be more occupationally mobile, even long after their arrival. By contrast, immigrants who are assessed on their skills upon entry are less occupationally mobile.

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<sup>3</sup>There are basic problems with equating decline in wages to be a decline in skills of new and more recent immigrants. It is well known that structural changes in the U.S. labor market have resulted in increasing returns to human capital. Wages have increased for individuals with high human capital and declined for those with less human capital or education (Murphy and Welch, 1997). Since Hispanic immigrants tend to have relatively lower education, this suggests that their earnings would have decreased even if their skills remained unchanged from those of previous cohorts (Borjas, 1995).

Another perspective offered by previous researchers is the importance of ethnic concentration in potentially shaping the occupational distribution of immigrants. Since immigrants tend to concentrate in specific locations (Bartel, 1989), the labor market conditions of the location are likely to influence occupational outcomes. The location may also provide greater opportunity for ethnic networks, including informational advantages, and a large enough ethnic markets that would reduce economic disadvantages, including occupational disadvantages (Portes and Rumbaut, 1996).

A group of theories predict that assimilation may in fact not take place. The labor segmentation theory contends the labor market is divided in a primary sector, made up of well-paying jobs with opportunities for mobility (Sanders and Nee, 1987). The secondary sector is comprised of low-paying job with limited advancement opportunities. Hispanics tend to be concentrated in the secondary sectors (were minorities, women and immigrants tend to be overrepresented) and there may in fact not assimilate in occupational status.

The economic restructuring theoretical view considers both the individuals' characteristics and economic structural changes. The economic restructuring elements, over the decades, have been characterized by a general decline in stable, well-paying manufacturing jobs and an increase in low-paying, service-oriented jobs. Macro economic changes, increases in global competition have affected the nature of employment. Structural shifts are reinforced by changes in the labor supply created by extensive immigration (Morales and Ong, 1990). Since the late 1970s there has been a growing polarization of job opportunities as evident from the changes in the distribution of industries and occupations (Harrison and Bluestone, 1988). The economy is based largely on services and a decline in manufacturing employment. For example, in Los Angeles, traditional durable goods industries (such as steel, auto and rubber) were replaced by jobs in both very high and very low technology industries. In Los Angeles, this

consists of aerospace, communications equipment and electronics on the one hand, that has a labor intensive component. The new structure of the employment base is characterized by a large number of low-wage jobs and a small number of high wage jobs. In the changing economic climate, college education is primordial for upward occupational mobility. Since Hispanics tend to have lower educational attainment, immigrant status, language barriers, they have been incorporated in occupational niches that can accommodate individuals with lower human capital. Hispanics have been absorbed in the growing low-level, service oriented labor market, with very low prospect for occupational mobility. According to this view, the low-skilled Hispanics are not likely to assimilate in occupational status.

### **III. Data and Summary Statistics**

This analysis is based on the Panel Study of Income Dynamics (PSID) for the years 1990 to 1993. It exploits the fact that the PSID oversampled the Hispanic population to investigate their occupational experience in the labor market over this period. The use of the PSID provides some advantages over previous studies that have made use of other longitudinal data. For example, the Legalized Population Surveys (LPS1 and LPS2) were used by Powers et al. (1998) to study the occupational status of undocumented immigrants. However, information on demographic and socioeconomic characteristics such as education and income lack in this data.<sup>4</sup> The Public Use Micro Statistics (PUMS) provides a very large sample and have been used before to study the earnings assimilation of Hispanics. The cross-sectional nature of the PUMS required that “artificial age cohorts” be created in making inferences about longitudinal behavior (Borjas, 1995). Therefore, in principle the PUMS could be used in this analysis as well. The use of the

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<sup>4</sup> The Survey of Income and Program Participation (SIPP) is a potentially viable longitudinal data to use as well. It was not used in this paper because in the public version of the data, the information on the years of migration was aggregated in terms of period intervals for confidentiality.

PSID is new and as such, will allow us to confirm some common patterns and trends learned from the PUMS regarding the economic adaptation of immigrants.

The PSID data provides detailed information about the family's individual members.<sup>5</sup> However, the information on occupation is provided only for the primary adults heading the family and, in addition, the wife where applicable. Although the question on occupation was included in the questionnaire for 1990 to 1995 and the special sampling of Hispanics was conducted over that entire period, as of now, unfortunately, information on occupation can only be obtained up to the year of 1993.

The descriptive statistics of selected variables from the PSID data are reported in Table 1, Panels A to D, each panel corresponding to a survey sample year. As shown in Panel A, education is lower for Hispanics compared to non-Hispanic Whites. The average number of years of schooling for Hispanic immigrants is 8.3. By contrast, non-Hispanic Whites have an average of 12.7 years of schooling. It can be noted that the number of years of schooling completed by Cubans is 11.9, which is somewhat comparable with non-Hispanic Whites. The Mexicans, Puerto Ricans and other Hispanics are relatively younger than non-Hispanic Whites.

Hispanics tend to be geographically concentrated. For example, close to 86 percent of Cubans in the sample reside in the South, particularly in the state of Florida. Over half of the Puerto Ricans are in the Northeast region, mostly in the state of New York. Close to half of the Mexicans are located in the Pacific West, which includes the state of California. Close to another half are in the West region, with a strong concentration in the state of Texas. As proposed in previous research, geographic distribution may play a role in shaping the resulting occupational distribution of Hispanics.

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<sup>5</sup> For a description of the data and a review of studies that have used the PSID, see Brown et al. (1996).

There are stark differences in the occupational distributions of different groups. For example, for the 1990 sample, over 21 percent of non-Hispanic Whites are in professional and technical occupations, and 16 percent are in managerial and administrative occupations. By contrast, 6 percent of Hispanic immigrants are in professional and technical occupations and 5 percent are in managerial and administrative positions. A relative concentration of Hispanic immigrants (mostly Mexicans) is in farm-related occupations. Other occupations with a relatively high concentration of Hispanic immigrants include operative, service, craftsmen and kindred services. A consistent pattern can be seen for the subsequent years reported in Table 1, Panels B to D.

The data on occupation in the PSID are coded according to the 1970 Census Occupational Classification System (OCS), which identifies 428 specific occupations. In order to assess the quantitative meaning of the categorical occupations, this study makes use of an index of socioeconomic status score, NAM-POWERS, developed by Nam and Powers (1983). In this analysis, the three-digit codes of the OCS were matched with the PSID occupation entries for each respondent, for each of the years from 1990 to 1993, and were assigned the corresponding NAM-POWERS scores. The NAM-POWERS score is an ordinal scale derived from the education requirements and wages of the job. Ranging from 0 to 99, the scores represent the socioeconomic standing of a particular occupation in the universe of detailed occupations of all individuals in the labor force.<sup>6</sup> The NP score is also based on a regression analysis of education and income as a mean to capture the relative importance that society places on the occupation.<sup>7</sup>

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<sup>6</sup> Similar measures have been developed for Australia (see Jones, 1989), and the United Kingdom (see Goldthorpe and Hope, 1974).

<sup>7</sup> See Nam (2000) for a comparison of the NP scores with other socioeconomic scores.

Table 2 reports the mean value and standard deviations of the NAM-POWERS scores for 12 major occupational categories in the PSID data for the year 1990. Professional and managerial occupations considered “high-skill occupations,” consistently, have the highest socioeconomic scores at 80 points or more. “Medium-skill occupations” are considered to be sales, clerical, craftsmen, transport equipment, and operative occupations. These occupations have the second highest sets of occupational status scores, ranging from an average of 36 to 62. “Low-skill occupations” include farmers and farm managers, service workers and laborers. They range from an average of 23 to 32. Finally, the “very low-skill occupations” are comprised of farm laborers, foremen, and private household workers. Average scores for these occupations go from 4 to 7.

The results from Table 2 show that apart from the farm occupations, the socioeconomic scores for Hispanic men are lower in all the occupation categories. The one exception is Cuban male professionals and managers, who on average have a higher socioeconomic status. Table 2 also shows that women across all racial/ethnic groups have a lower occupational status than men. The exception here is private household workers, for whom socioeconomic status is among the lowest. In general, non-Hispanic White women have a higher average socioeconomic status than Hispanic female counterparts. An exception is in managerial occupations, where Hispanic women have a slight advantage over non-Hispanic White women.

Table 3 reports the average wages earned by different groups in the 12 major occupation categories. With the exception of farm-related occupations, where wages are already very low, the wages earned by Hispanics in each category are lower. The gap in earnings is largest among individuals in “high-skill occupations.” For example, Hispanic male managers and administrators earn on average \$27,000, compared to non-Hispanic counterparts, earning close to \$60,000. Similarly, Hispanic professionals and technicians earn \$33,000, compared to \$44,000 earned by

non-Hispanic White counterparts. These results suggest a number of possibilities. There may be divergences in the kinds of tasks that Hispanics and non-Hispanic perform on the job, and/or the market may value occupation differently by group.

Focusing on gender differences in Table 3, women earn less than men do and non-Hispanic women earn more than Hispanic women. Again, the exception is in the managerial occupations where Hispanic women appear to have a slight earnings advantage over non-Hispanic Whites.<sup>8</sup>

Table 4 reports the average occupational scores for Hispanic and non-Hispanic White men and women for the years 1990 to 1993. The results show that Hispanics have lower average occupational scores than non-Hispanic Whites. Non-Hispanic White men have a score of 63.9 but Hispanic men have a score of 47.1. To a large extent, immigrant status contributes to Hispanics' occupational disadvantage. The U.S.-born Hispanic men have an average score of 52.5, whereas the immigrant counterparts have a score of 41. The same pattern is consistent for women and persists for the next 3 years over the period.

Table 5 reports the average occupational status scores for Hispanic immigrants by entry cohort. Tracking individuals who reported an occupation for each of the years in the survey period, a number of facts can be noted: first, the average socioeconomic status of Hispanics has declined across successive cohorts. For example, for 1990, the '<=5 years' group have an average score of 29.7. Those in the '6-10 years' cohort group have an average score of 37.9. Those in the '>20 years' group have an average score of 47.6.

Table 6 reports the average occupational status scores for various Hispanic ethnic groups and by entry cohort for the year 1990. Again for each of the groups, the socioeconomic status

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<sup>8</sup> A potential explanation may be a higher return to bilingualism in managerial occupations for Hispanic women.

declines across successive cohorts.<sup>9</sup> Mexicans have relatively lower socioeconomic occupational status irrespective of the entry cohorts.

Even within the short 4-year timeframe, there is some evidence of occupational mobility among Hispanic immigrants over time. Table 7 reports the changes in occupation experienced by individuals between 1990 and 1993. Thirty-one percent of Hispanics experienced upward occupational mobility compared to 26 percent of non-Hispanic Whites. A higher proportion among the most recent Hispanic cohorts experienced upward occupational mobility. For example 34 percent of the cohorts who arrived 5 years or less prior to the survey experienced an upward mobility, whereas 22 percent of the cohorts who arrived 20 years prior to the survey or earlier experienced a similar upward movement.

We note that the proportion of individuals who change occupations upward or downward is very high in the PSID, close to 50 percent, which is somewhat unlikely. This situation is probably due to coding errors in the PSID data on occupation. Indeed to correct the errors, the PSID released Retrospective Occupational Industry Supplemental Data Files that recoded occupations (and industries) for the period of 1968-1980 (Survey Research Center, webpage). Data after 1980 that still rely on the originally coded data is still subject to substantial error and it would be imperative to control for coding error after 1980 in an analysis of workers' occupational change based on the PSID data for an analysis of change in occupation.

We found that although the changes in occupation are high, the occupational status scores which is the focus of this analysis did not change by much from one occupation to the next for the same individual. As can be seen from Table 4, the range in average Hispanic occupational

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<sup>9</sup> Contrary to the pattern, recent Puerto Rican cohorts have higher scores than earlier cohorts. Ramos (1992) finds that Puerto Rican immigrants who return to Puerto Rico, a U.S. possession, are relatively more skilled and those who are relatively unskilled tend to reside longer in the mainland U.S. Following Ramos' study, our finding may be an artifact of the group's return migration pattern. The small sample size of the most recent cohort suggests that any interpretation be given with caution.



status scores varies from 47.1 to 48.9 over the period, suggesting more moderate occupational differences than is suggested by the number of individuals who report changes in occupation.

The rate of change in the occupation scores was also higher for Hispanics. On average non-Hispanics experienced an 18.4 percent increase in occupation scores. By contrast the most recent (less than 5 years) had a 38.9 percent increase in their average occupation scores. The 11-to-20 year cohorts experienced an increase of an average of 45 percent. The higher change in occupation score has to do with the lower status of the occupation of immigrants.

In summary, the descriptive statistics suggest a number of potential results. The socioeconomic occupational status of Hispanic immigrants is relatively lower than non-Hispanics. Differences exist in the socioeconomic characteristics and occupational distribution across various Hispanic ethnic groups. In particular, Mexicans and Puerto Ricans tend to have the greatest gap relative to non-Hispanic Whites. Consistent with assimilation theory, even in this univariate environment, the results point to a pattern whereby Hispanics who have been in the country for a longer period of time experience a higher rate of occupational mobility. This trend may follow from the fact that occupational mobility is a natural part of the adjustment process of Hispanics in the country, an “assimilation effect.” Or, following Borjas’ proposition, the relatively higher socioeconomic status achieved by Hispanics who have been in the country for a longer period of time may also reflect differences in human capital skills across successive entry cohorts, a “cohort effect.” To determine if these hypotheses are true, assimilation versus cohort effects, a multivariate analytical framework is proposed.

#### **IV. Theoretical Framework**

Pulling the 1990, 1991, 1992, and 1993 PSID panel data, the socioeconomic occupational status of Hispanic immigrants over the sample period is considered in the following random effect framework:

$$S_{it} = \mathbf{X}_{it} \boldsymbol{\beta}_{it} + \phi_{it} A_{it} + \gamma M_{it} + \delta C_{it} + \sum_{t=1}^{\Omega-1} \lambda_t P_{it} + v_i + \varepsilon_{it} \quad (1)$$

Where,

$S_{it}$  is the composite index of the socioeconomic occupational status score of the  $i^{\text{th}}$  immigrant person in the  $t^{\text{th}}$  year of the sample period ( $t = 1$  to  $\Omega$ ). One of the four periods is omitted (hence  $\Omega - 1$ ) in order for the model to be identified.

$\mathbf{X}$  is a  $1 \times k$  vector of human capital and demographic exogenous variables.

$\boldsymbol{\beta}$  is  $-k \times 1$  vector of parameters.

$A$  is the age of the individual.

$\phi$  is the rate at which the individual experiences occupational mobility over the life cycle. The life-cycle effect for the immigrants also encompasses the effect of the length of stay in the host country.

$M_i$  is the years-since-migration variable, which is a proxy for the assimilation effect.

$\gamma$  conveys the socioeconomic value of a year spent in the U.S. labor market.

$C$  represents the different entry cohorts.

$\delta$  stands for the differences in socioeconomic attainment across immigrant cohorts.

$\lambda$  gives the period effect.

$P$  is a vector of dummy variables indicating the years of the survey. They can be seen as indicator variables for labor market and economic conditions in the given years.

$v_i, \varepsilon_{it}$  are random components of the model.  $v_i$  is the individual random effects or the random disturbance component characterizing the  $i^{\text{th}}$  observation and is constant through time over the sample period. It can be viewed as a collection of factors not in the regression that are specific to the individual. The disturbances in different periods for a given

individual,  $\varepsilon_{it}$ , are correlated because of their common component  $v_i$ . In sum, the error terms, consistent with the random effect model, (Greene, 2003) are assumed as follows:

$$\begin{aligned} E[v_i] &= 0, \text{Var}[v_i] = \sigma_v^2, \text{Cov}[\varepsilon_{it}, v_i] = 0 \\ \text{Var}[\varepsilon_{it} + v_i] &= \sigma_v^2 = \sigma_\varepsilon^2 + \sigma_v^2 \\ \text{Corr}[\varepsilon_{it} + v_i] &= \rho \end{aligned}$$

The natives' socioeconomic occupational status, counterpart to equation (1) is given as follows:

$$S_{nt} = \mathbf{X}_{nt} \boldsymbol{\beta}_{nt} + \phi_{nt} A_{nt} + \sum_{T=1}^{\Omega-1} \lambda_t P_{nt} + v_n + \varepsilon_{nt} \quad (2)$$

The coefficients, the variables and the error terms are as previously defined, except that here they apply to the  $n^{\text{th}}$  U.S.-born person and immigration-related variables are not relevant.

Considering equation (1) and (2), the convergence between the rate of occupational status between immigrant and native can be specified as follows:<sup>10</sup>

$$\gamma^* = \frac{\partial \log S_i}{\partial t} \Big|_{\text{immigrant}} - \frac{\partial \log S_n}{\partial t} \Big|_{\text{U.S. born}} = (\phi_i + \gamma) - \phi_n \quad (3)$$

Equation (3) shows that assimilation occurs when there is convergence with native ( $\gamma^* = 0$ ). The ambiguity that can arise without a clear determination of the comparison group is obvious in this equation. If  $\phi_i < \phi_n$ , (which is very likely since the Hispanic immigrants are relatively younger), it is possible to obtain a positive  $\gamma$  suggesting that assimilation occurs in the sense of Lalonde and Topel (1991), but yet still observe  $\gamma^* < 0$ , which would indicate that immigrants do not assimilate with respect to natives.

<sup>10</sup> This definition of assimilation follows from Borjas' (1999) earnings convergence model. Although the comparison group in the equation is denoted as U.S. born, since the PSID data does not provide information on the

## V. Empirical Results

A random effects linear regression procedure is used to estimate the coefficients of the model. The random effects linear regression technique is used because of the panel nature of the data, where the variables in consideration have time-variant elements (e.g., age, years-since-migration variables) as well as time-invariant characteristics (e.g., gender, race variables), (see Greene, 2003). The population sample is restricted to individuals aged less than 65 years to avoid complications associated with individuals facing retirement decisions at the traditional retirement age. To obtain a balanced panel, only individuals who reported an occupation for each year over the period are included. The definitions of the variables are also provided in Table 8. Table 9 presents the set of regressions for the full sample. The dependent variable is the natural log of the NAM-POWERS scores, denoted as OCCUPATION.

Column (1) in Table 9 reports the full specification of the model. The inclusion of education in Column (1) means that we are comparing the various racial/ethnic groups who have comparable levels of education with non-Hispanic Whites, the omitted category. Column (2) reports the results obtained from running the same equation as in Column (1), but with omission of the education variable. Not controlling for education means that we are comparing the various groups, irrespective of their level of human capital, with non-Hispanic Whites, the omitted category. Because the impact of ethnic differences on occupational status is severe, we also did the same analysis for each Hispanic immigrant group, for non-Hispanic Whites, and for U.S.-born Hispanics. Conducting the analysis for each group separately allows us to isolate the ethnic differences from the effects of other determinants of occupational achievement. In Table 10, each of the regressions reported is conditioned on a distinct racial/ethnic group. If the

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immigrant status of non-Hispanics, the analysis will be conducted comparing Hispanics with non-Hispanics, some of whom may be immigrants.

assimilation process includes the acquisition of education, having education as an explanatory variable in the equation may hide the fact that assimilation takes place (Borjas, 1999). In order to test for this possibility, the specifications in Column (7), (9), and (11) of Table 10 omit the education indicator variable.

### ***Period and Regional Effects***

We assume that the health of the economy plays a role in determining the occupational positioning of workers. In our case, the 1990-1993 period covered by the data was a period of recession (1990-1991) and then a slow recovery up to 1993, (followed by expansion up to 2001) which could have important effects on occupational achievement. The effect is ambiguous. For example, during a period of recovery, there may be relatively more opportunities for job advancement, which would show up in higher occupational status scores. At the same time, there may be increased employment opportunities at the bottom of occupational scale during an expansion that might mask upward occupational mobility. A trough may coincide with fewer opportunities for advancement. Workers may lose their jobs and have to resort to a lower ranked occupation, which would lead to downward occupational mobility. (However, if workers stay unemployed, we would not be able to capture this potential downward movement). It is also possible to get upward occupational mobility during a recession if more of the people who lose their jobs are in lower ranked occupations, as opposed to those who lose jobs in higher ranked occupations. We use each year of the survey as an indicator variable to control for the impact of aggregate economic condition in each year. We also control for regional differences with indicator variables representing the North, the Midwest, etc. Regional economic conditions may be important for Hispanic workers since they tend to be geographically concentrated.

The results show that period effects are significant explanatory factors for occupational attainment of workers overall (Table 9). The period effects were statistically significant for non-Hispanic Whites, U.S.-born Hispanics and Mexican immigrants (the groups with the largest number of workers). For the other groups, the period effect on occupation was not statistically significant (potentially due to their relatively smaller number in the labor market). We note that the year 1991 was negative for occupations of U.S.-born Hispanics, consistent with research that found they were particularly affected by the 1990-1991 recession. We find that regional factors also impacted the occupation status of Mexican immigrants, but not other Hispanic groups. Mexicans fared less well in terms of occupation status in the West, the Pacific West and the Midwest compared to the South during 1990-1993.<sup>11</sup>

### ***The Impact of Education and Language***

Education is an important component of human capital that increases productivity; as such, it affects the level of occupational achievement experienced by individuals in the labor market.

Our analysis shows that in general, each additional year of schooling improves the occupational achievement score by 8 percent. Conditioned on distinct ethnic groups (Table 10), the results show that education also contributes significantly to enhancing occupational achievement for each racial/ethnic group, although its contribution differs across groups. The impact of education on occupational achievement is higher for non-Hispanic Whites (8.1 percent) and U.S.-born Hispanics (7.1 percent). The return to education in terms of occupational achievement is also higher for Puerto Ricans (7.6 percent), who are technically from a U.S.

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<sup>11</sup> A full discussion of the impact of recession on Latino workers is beyond the scope of this research. See Suro and Lowell (2002) for an excellent discussion of how Hispanics fared in the recession in 1990-1991 and the subsequent period in different regions of the U.S.

territory. By contrast, the impact of education for Mexican immigrants is 6.2 percent and for Cubans, it is 3.8 percent. All of these effects are statistically significant<sup>12</sup>

The relatively low contribution of education to occupational achievement for Mexican and Cuban immigrants compared with non-Hispanic Whites and U.S.-born Hispanics may be due to several factors. It is possible that disparity in the labor market affects the return to education—there may have lower returns to education due to discrimination, as has been documented elsewhere. Or, alternatively, other unobservable differences may be the cause, such as differences in the level of transferability of education (education obtained abroad may not translate well to the U.S. labor market).

The ability to speak English is also an important attribute that affects access to certain occupations. In general, Hispanic immigrants who do not speak English have occupation scores that are 9 percent lower than individuals who speak English or those whose native language is English (Table 9, column 1).<sup>13</sup> Interestingly, the impact of not speaking English is not a significant factor in explaining differences in occupational status among Mexican and Cuban immigrants when the analysis is done separately by group (Table 10). A potential explanation may be ethnic segregation in the labor market. It has been noted that Cubans, for example, tend to live in ethnic enclaves where the local labor market is such that it works as a viable alternative for ethnic employment and renders lack of English skills more innocuous (Portes and Rumbaut, 1996). But even in the overall labor market, occupational segregation can serve to mitigate the impact of not knowing English well. In occupations where Hispanics have traditionally been concentrated, research has found that employers tend to be less likely to screen against those

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<sup>12</sup> The relatively lower coefficient for Cubans is also likely due to the lack of variability of education among Cubans as most of them have fairly high educational attainment. In other words, education is not a strong predictor of differences in occupation among the Cubans.

with a lack of English, circumventing this barrier by hiring managers who speak both English and Spanish (Kossoudji, 1998).

### ***The Impact of Demographic Characteristics***

The results show that males in general have occupation scores that are 12.9 percent or 13.9 percent higher than females (Table 9, column 1 and 2). A much larger difference in occupation exists among Mexican and Cuban immigrant men and women (Table 10). Holding all else equal, Mexican men are in occupations that have scores that are 38.5 percent higher than Mexican females, and Cuban males have scores that are 27.4 percent higher than Cuban females. Part of the explanation for the gender gap may be occupational segregation that keeps differences in access to information. Low-skilled Hispanic females who work disproportionately in live-in/household cleaning occupations may have less access to outside contacts and networks to learn about other employment leads (Kossoudji, 1998).

The age of individuals also affects their occupational attainment. AGE is specified in cubic terms to allow the variable to vary with time, an approach which reveals a better fit for the model. The results show it first contributes to increasing the occupational score, and thereafter decreases it. This is consistent with previous research that finds that occupational mobility declines with worker age (Kambourov and Manovskii (2004). This life-cycle effect on occupational achievement is particularly significant for non-Hispanic Whites and Cubans, the two groups who are older on average than Hispanics.

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<sup>13</sup> For interpretation purpose, the coefficients of the dummy variables reported in the text are exponentiated (Kennedy, 1981; Halvosen and Palmquist, 1980).



### ***The Impact of Length of Time Residing in the U.S. (Assimilation)***

The longer one lives in this country the greater the opportunity to acquire and process information that would be useful in promoting occupational achievement. We find that each additional year of living in the U.S. contributes significantly to closing the gap in the occupational attainment of Hispanics relative to non-Hispanic Whites, at a rate of 0.7 percent per year (Table 9). (Later in this section, we will discuss estimates of how long it would take for the gap to close). The coefficient for the assimilation effects becomes statistically significant for Mexicans [Column (7)] when education is omitted, consistent with Borjas' prediction, indicating that part of the assimilation process of Mexicans in the United States may include acquisition of education. Every additional year of living in the U.S. increases the socioeconomic status score for Mexican immigrants by 10 percent [the YSM coefficient/ (2 x YSM\_SQUARE coefficient)]. For the remaining groups, the omission of education in the equation does not alter the other variables significantly. For Cubans, significant factors that contribute to upward occupational mobility are labor market experience and life-cycle or age effects. For Puerto Ricans, a lack of English language knowledge significantly impedes occupational status in the mainland U.S.

### ***The Impact of Different Immigration Cohorts***

Independent of the impact of assimilation (length of time in the U.S.), there may be systematic cohort effects. Immigrants who arrived at different periods in the U.S. may have different propensities to assimilate. The results show that U.S.-born Hispanics have occupational scores that are 6.5 percentage points lower than non-Hispanic Whites with comparable U.S. labor market experience and education (Table 9). Occupational attainment for Hispanic immigrants declines with successive cohorts. These can be attributed, to some extent, to differences in education. For example, not controlling for education (Table 9, column 2), we find that the most

recent cohort (who arrived after 1985) has occupation scores that are 91 percent lower than those of non-Hispanic Whites. When we control for education (column 1), this group has occupational scores that are 57.5 percent lower. Similarly, the oldest cohort, the 1960's, has occupational scores that are 79.1 percent lower than those of non-Hispanic Whites (column 2). But when we control for education, the difference is insignificant (column 1). Except for the earliest cohort, the differences in occupational scores between Hispanic immigrants by cohort and non-Hispanic Whites remain even when controlling for education and labor market experience.

### ***Occupational-Age Profile of Hispanics and non-Hispanic Whites***

It is customary to use the estimated coefficients from the regression model to obtain fitted values for each individual —the predicted occupational scores for each individual in each of the years represented in the survey. We graph the predicted scores of occupational status against age to obtain the predicted occupational-age profile of U.S.-born and immigrant Hispanics and non-Hispanic Whites, respectively.<sup>14</sup> This gives a clearer idea of how occupational status evolves with age. Figure 1 below depicts the results.

The results show a substantially different occupational profile of non-Hispanic Whites and Hispanics. Non-Hispanic Whites begins their work history in occupations with a predicted score of above 50 (the top curve in Figure 1). They experience a steady increase in occupational status until their early 40s, after which, their score declines. U.S.-born Hispanics start below a score of 50 and experience an increase in occupational status until their late 40s (the second curve in Figure 1). By contrast, Hispanic immigrants start below a score of 35. They also experience an increase in occupational status until their 40s (the bottom curve in Figure 1). The

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<sup>14</sup> The fitted values are obtained from regression analyses run for each non-Hispanic White, Hispanic immigrant and U.S.-born, separately. Other characteristics affecting occupational status beside age are held constant.

downward sloping section of the occupational status profile for each of the groups is consistent with standard human capital and occupational-matching theories and is corroborated by evidence from Miller (1984), McCall (1990) and Kambourov and Manovskii (2004). Human capital is accumulated with occupational experience and, as such, the opportunity cost of switching occupations rises with occupational tenure. Hence as average occupational experience in a cross-section of workers rises with age, occupational mobility declines with age. In addition, life-cycle factors reduce mobility of occupation with age because the pay-off from investing in new skills in a new occupation declines with age.

### ***Occupational Assimilation of Hispanic Immigrants (the case of Mexican Immigrants)***

Do Hispanic immigrants assimilate in occupational status the longer they live in the United States? We graph the predicted occupational status scores against years-since-migration to simulate the potential occupational trajectory of Mexican immigrants, the largest Hispanic immigrant group in the U.S., by education level.<sup>15</sup>

Consider a Mexican immigrant who enters the United States at the age of 20. From one year arrival to 30 years later, what course will his/her occupation trajectory take over this period? What does his/her occupational profile look like if he/she has a college education, or if he/she has a high school education or less? How long does it take him/her to reach occupational parity with U.S.-born ethnic counterparts and non-Hispanic White counterparts with the same level of education? We define occupational parity to be achieved when the predicted occupational status

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<sup>15</sup> As the larger group of Hispanic immigrants, the results for Mexicans are similar with that of all Hispanics as a group. The fitted values or the predicted occupational scores are obtained from regression analyses for Mexican immigrants by education. Other characteristics affecting occupational status beside age are held constant. The analysis is not done separately for Puerto Rican and Cuban immigrants by education due to concerns about the reliability of obtaining predictions from too small a sample size.

of Hispanics is equal to the median predicted value of occupational status for non-Hispanic Whites or their U.S.-born Hispanic counterparts.

Figure 2 traces the occupational trajectories for less-educated Mexicans (defined as having a high school degree or less education), and for educated Mexicans (defined as having at least some college education). Mexican immigrants with less education start at a low level of just above 20 and the maximum predicted is below 40. Their occupational score never reaches that of their U.S.-born Hispanic counterparts with the same education (who have a median predicted score of 48). There is also no convergence in terms of occupational status with less-educated non-Hispanic Whites (who have a median predicted score of 51).

For more educated Mexican immigrants, there is a steady upward trend in occupational status with years of U.S. experience. They achieve a predicted score of above 40 after 5 year in the U.S. and their predicted score is above 60 after 10 year in the U.S. Their predicted score converges with the median predicted score for U.S.-born Hispanics with at least a college degree (with a median predicted score of 60) after 10 years of U.S. experience. Their score converges with the median predicted score for non-Hispanic Whites with at least some college education (with a median predicted score of 68) after approximately 15 years of U.S. experience.

#### **IV D. Summary and Implications**

This research analyses the determinants of the occupational status of Hispanics. Overall, the occupational status of Hispanics is lower relative to that of non-Hispanics. However, differences exist in status of occupations by Hispanic ethnicity (country of origin). Compared to non-Hispanics, Mexicans and Puerto Ricans tend to have the greatest gaps in occupational status. By contrast, Cubans' occupational status is comparable with non-Hispanic Whites. The heterogeneity of the Hispanic population suggests that any initiatives designed to address

occupational and socioeconomic deficiencies should take into consideration the particular needs of the population served.

The results show that human capital characteristics, formal education and labor market experience have a positive impact on occupational status. The appropriate policy response will entail that we have a clear understanding of the effectiveness of the type of education, whether it is education obtained as a child, formal training, or job-matching training programs that work best to enhance occupational prospects. To the extent that formal education acquired as a child is what matters the most, this would support the role for policy initiatives that enhance access to formal education. To the extent that job-matching training programs are also effective, the expansion of workforce opportunities through job training programs for low-skilled workers would also be an appropriate response to help improve the socioeconomic position of the group overall. However, without reliable measures of the effectiveness of specific training programs, which is beyond the scope of this research, the role of job training programs in closing gaps in occupations remain uncertain.<sup>16</sup>

This research highlighted the concentration of Hispanic workers and noted that the occupational niches held by less-educated immigrant Hispanics tend to provide them with relatively low wages, implying that a substantial part of this population is working poor. This might suggest that Hispanic workers could benefit from policies aimed at altering the course of the employment experience of the working poor in general. It has been proposed that such policies may include and are not limited to, minimum wage increases, reforms that mandate a

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<sup>16</sup> As a result of uncertainty about the ability of American schools and firms to educate and train workers, especially non-college bound youth, a “new consensus” has emerged that proposes to implement an apprenticeship system patterned after programs in Germany, creating a nation-wide system of vocational credentialing and increasing the availability of government training programs. Heckman et al (1993) examine the assumptions underlying the current proposals and find no empirical or theoretical justification for many of the proposed programs. While some of these programs aim toward desirable ends, they claim that there are other more efficient, less costly means to attain these objectives.

minimum standard of health care benefits, and affordable insurance. However, the net effect on overall employment of such policies must be carefully considered.

The effects of human capital vary by Hispanic group. Education contributes less to improving the occupational achievement of Mexican, Cuban, and Puerto Rican immigrants compared to non-Hispanic Whites and U.S.-born Hispanics. This may reflect the fact that education received abroad may not transfer well to the U.S. labor market, or that the market may value education differently by group. Language ability does not seem to be relevant for understanding differences in occupational status among Mexicans and among Cubans. Occupational segregation and a dual labor market, whereby labor market transactions are conducted in Spanish, may shield individuals from these groups from the potential disadvantage of not speaking English. However, language ability is very important for understanding the overall occupational status of Hispanics. A lack of English ability is detrimental to their achievement in occupational status. Therefore, initiatives that help bridge language barriers in the workplace are important.

The length of time that Hispanic immigrants have been in the country contributes toward narrowing the occupational status gap with non-Hispanic Whites. This supports the proposition that as Hispanics gain U.S. experience their occupational status does improve. Independent of assimilation effects, we also found evidence of *cohort effects* consistent with Borjas (1995). We find evidence that more recent cohorts have lower human capital over and above that measured by education. We show that more recent cohorts of Hispanic immigrants have a greater gap in occupational status compared to non-Hispanic Whites. Although part of the gap can be explained by the fact that earlier cohorts have more education, even when we control for education and labor market experience, there remains a substantial disparity in occupational status between different Hispanic immigrant cohorts and non-Hispanic Whites.

Based on the coefficients of the model of occupational status, we obtained predicted occupational scores for each individual over the period, which we use to simulate the occupational-age profile of U.S.-born and immigrant Hispanics and non-Hispanic Whites. The occupational-age profile of U.S.-born Hispanics, and even more so, that of Hispanic immigrants, are lower than the occupational-age profile of non-Hispanic Whites throughout their lifecycles.

This research simulated the occupational trajectory of Mexican immigrants by education level and noted how many years of U.S. experience it would take for their predicted scores to equal the median predicted score for non-Hispanic Whites and their U.S.-born Hispanic counterparts with the same level of education. That point is referred to as the *point of convergence* or *assimilation*. Mexican immigrants begin their time in the U.S. in very low status jobs. The changes we observe with time in the U.S. are consistent with *human capital accumulation and assimilation theory*, suggesting that there is a natural adjustment process for Mexican immigrants.

Education not only affects the level of occupational status, but also impacts the pace of occupational mobility and the potential for convergence. Educated Mexicans experience faster rates of occupational status improvement over time compared to less-educated Hispanics. We find that there is convergence in occupational status between educated Hispanics and U.S.-born Hispanic counterparts and non-Hispanic Whites with the same level of education. On the other hand, the results suggest that less-educated Mexican immigrants will never reach the occupational status of U.S.-born Hispanics or non-Hispanic Whites. This group is likely to start and remain in occupations that are distinct from those of U.S.-born Hispanics and non-Hispanic Whites. This suggests that recent proposals to provide legal admission status to Mexican immigrants that would be sponsored by an employer, provided that there is demonstrated need for such workers in the face of the jobs not being filled by willing U.S. legal residents would not

harm non-Hispanic Whites, particularly from an occupational status perspective. The fact that Hispanic immigrants tend to be occupationally segregated into a distinct set of occupations likely mutes the effect of increased immigration on the wages of natives.

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<b>Table 1, Panel A: Descriptive Statistics, 1990 PSID</b>									
		<b>All Sample</b>	<b>Non-Hisp White</b>	<b>US Born Hisp</b>	<b>Hisp Immig</b>	<b>Mexican</b>	<b>Puerto Rican</b>	<b>Cuban</b>	<b>Other Hisp</b>
<b>Average Age</b>		35	36	22	42	25	25	35	27
<b>Average Years Since Migration</b>		--	--	--	17	16	21	19	19
<b>Average Age at Immigration</b>		--	--	--	23	23	23	34	36
<b>Average Educational Attainment</b>		12.4	12.7	11.8	8.3	10.2	10.4	11.9	12.6
<b>Educational Attainment</b>									
	<= 5 <sup>th</sup> Grade	4.5	0.9	4.8	20.5	12.7	12.1	9.0	4.6
	6 <sup>th</sup> to 8 <sup>th</sup> Grade	8.8	4.6	9.9	26.0	18.2	14.9	17.1	11.9
	9 to 11 Grade	19.1	14.4	26.9	11.9	22.0	27.8	13.5	18.4
	High School Degree	36.7	39.4	34.5	24.4	29.1	28.4	32.9	35.9
	College w/o Degree	17.6	19.6	17.0	10.9	13.1	12.1	16.5	21.5
	College Degree	8.1	12.8	4.2	3.7	2.9	3.0	6.6	5.4
	Advance Degree	5.1	8.3	2.6	2.7	2.0	1.8	4.5	2.3
	<b>Total</b>	18262	8306	3065	2065	2876	879	1129	739
<b>Interview in Spanish</b>									
	Percent	14.1	0.0	41.0	79.3	47.7	54.9	64.2	30.2
	<b>Total</b>	5425	0	3611	1814	3286	1076	1167	485
<b>Employment</b>									
	Employed	59.4	65.3	52.8	55.3	56.9	41.6	52.1	61.8
	Not in Labor Force	20.7	17.3	29.3	21.5	25.8	32.6	24.0	21.7
	Retired/Disabled	12.9	13.4	9.8	14.8	8.2	16.0	17.8	10.6
	Unemployed	7.0	4.0	8.2	8.4	9.0	9.8	6.0	5.9
	<b>Total</b>	18792	8409	3196	2258	3068	948	1191	764
<b>Region of Residence</b>									
	Midwest	19.8	29.1	8.5	7.0	10.3	9.7	2.0	4.5
	Northeast	14.5	19.8	14.2	14.7	1.5	65.4	6.6	12.1
	Pacific West	15.8	11.8	31.3	26.6	45.9	6.3	2.2	22.3
	South	31.7	24.5	14.7	37.4	2.2	15.8	85.9	26.8
	West	18.3	14.8	31.3	14.2	40.1	2.8	3.3	34.3
	<b>Total</b>	38475	16255	8838	2302	6885	1978	1839	1611
<b>Occupation</b>									
	Clerical	15.3	15.5	16.0	9.0	11.2	17.0	13.4	13.7
	Craftsman	13.1	13.3	12.9	16.8	13.4	12.2	19.1	16.3
	Farm Laborers and Foreman	1.5	0.4	2.4	6.6	6.6	0.4	0.0	0.5
	Farmers and Farm Managers	0.8	1.3	0.2	0.4	0.4	0.0	0.1	0.2
	Laborers, Except Farm	4.8	3.2	6.0	6.8	7.5	4.1	5.7	7.0
	Managers and Administrators	11.6	16.4	9.3	5.3	6.2	7.5	10.5	9.5
	Operatives, Except Transport	12.2	7.7	13.5	23.6	20.6	16.1	14.2	14.2
	Private Household Workers	1.3	0.8	1.0	1.2	1.1	0.6	1.3	1.5
	Professional, Technical	14.9	20.8	11.2	5.8	7.7	9.4	11.3	9.7
	Sales Workers	4.9	6.6	4.5	3.1	3.1	3.4	5.3	5.2
	Service Workers	15.1	10.1	18.0	17.6	17.9	24.2	14.8	16.5
	Transport Equip. Operatives	4.5	3.8	5.0	3.8	4.2	4.9	4.2	5.8
	<b>Total</b>	13487	6712	2085	1442	2161	466	716	600
Note: Results are weighted to reflect sample stratification									

<b>Table 1, Panel B: Descriptive Statistics, 1991 PSID</b>									
		<b>All Sample</b>	<b>Non-Hisp White</b>	<b>US Born Hisp</b>	<b>Hisp Immig</b>	<b>Mexican</b>	<b>Puerto Rican</b>	<b>Cuban</b>	<b>Other Hisp</b>
<b>Average Age</b>		36	37	23	42	26	26	36	28
<b>Average Years Since Migration</b>		--	--	--	18	17	22	20	19
<b>Average Age at Migration</b>		--	--	--	24	23	26	33	22
<b>Educational Attainment</b>									
	<= 5 <sup>th</sup> Grade	4.3	0.9	5.1	18.9	12.5	12.2	7.8	4.0
	6 <sup>th</sup> to 8 <sup>th</sup> Grade	8.5	4.4	9.4	25.1	17.3	13.8	18.6	10.7
	9 <sup>th</sup> to 11 <sup>th</sup> Grade	19.0	13.8	27.2	11.1	23.1	28.4	12.4	18.9
	High School Degree	37.0	39.7	33.9	28.5	28.8	28.6	33.5	35.4
	College w/o Degree	17.9	20.0	17.5	10.3	13.1	12.5	17.2	22.5
	College Degree	8.2	12.8	4.5	3.5	3.1	3.3	6.2	6.2
	Advance Degree	5.1	8.4	2.4	2.5	2.0	1.2	4.2	2.4
	Total	18019	8295	3020	2013	2837	818	1046	721
<b>Interview in Spanish</b>									
	Percent	13.2	0.0	39.4	77.5	45.6	53.9	64.7	28.5
	Total	4836	4	3177	1653	2917	928	1068	429
<b>Employment</b>									
	Employed	58.8	64.7	52.2	52.9	54.7	39.2	53.0	61.7
	Not in Labor Force	20.4	16.6	30.5	22.2	27.9	33.6	22.4	21.6
	Retired/Disabled	13.2	13.8	8.7	16.0	8.3	15.8	17.7	8.9
	Unemployed	7.5	4.5	8.6	8.8	9.0	11.4	7.0	7.9
	Total	18509	8409	3152	2087	3034	878	1091	751
<b>Region of Residence</b>									
	Midwest	20.2	29.7	8.1	6.6	9.6	8.6	2.1	5.4
	Northeast	14.3	19.7	13.7	14.0	1.6	65.7	5.8	12.3
	Pacific West	15.4	11.5	31.2	26.9	45.4	6.8	2.1	21.8
	South	31.8	24.4	14.7	37.8	2.3	16.1	86.9	26.6
	West	18.3	14.6	32.3	14.7	41.0	2.8	3.0	33.8
	Total	36432	15683	8001	2120	6335	1704	1604	1508
<b>Occupation</b>									
	Clerical and Kindred	15.6	15.9	18.2	9.4	13.5	15.7	14.1	19.3
	Craftsman	13.7	14.1	14.8	16.2	15.4	13.9	17.6	15.0
	Farm Laborers and Foreman	1.5	0.4	2.6	6.2	6.3	0.5	0.2	1.6
	Farmers and Farm Managers	0.8	1.4	0.3	0.3	0.3	0.0	0.3	0.2
	Laborers, Except Farm	4.4	2.8	5.3	5.6	6.3	5.1	3.1	6.1
	Managers and Administrators	11.7	16.5	9.7	6.2	6.9	7.2	12.2	9.4
	Operatives, Except Transport	11.5	7.0	11.8	23.6	18.3	16.2	15.9	13.4
	Private Household Workers	1.3	0.7	1.4	1.4	1.6	0.7	0.9	2.1
	Professional, Technical	15.0	21.0	11.6	6.0	8.1	9.2	11.3	9.6
	Sales Workers	4.7	6.1	3.8	3.3	2.7	3.0	5.6	4.9
	Service Workers	15.2	10.4	15.9	17.0	16.3	21.9	13.4	14.6
	Transport Equip. Operatives	4.7	3.6	4.8	5.0	4.5	6.7	5.4	4.0
	Total	12873	6475	1955	1325	2032	433	647	575
Note: Results are weighted to reflect sample stratification									

<b>Table1, Panel C: Descriptive Statistics, 1992 PSID</b>									
		<b>All Sample</b>	<b>Non-Hisp White</b>	<b>US Born Hisp</b>	<b>Hisp Immigr</b>	<b>Mexican</b>	<b>Puerto Rican</b>	<b>Cuban</b>	<b>Other Hisp</b>
<b>Average Age</b>		35	37	23	44	25	26	36	27
<b>Average Years Since Migration</b>		--	--	--	19	18	25	21	20
<b>Average Age at Migration</b>		--	--	--	25	23	22	34	22
<b>Educational Attainment</b>									
	<= 5 <sup>th</sup> Grade	4.3	0.9	5.5	19.3	12.1	11.9	7.3	4.2
	6 <sup>th</sup> to 8 <sup>th</sup> Grade	8.2	4.1	8.9	26.0	16.2	13.4	16.7	10.0
	9 <sup>th</sup> to 11 <sup>th</sup> Grade	18.7	13.8	26.5	11.6	22.6	28.5	12.8	18.7
	High School Degree	37.1	39.3	34.5	26.0	30.4	29.6	34.2	34.9
	College w/o degree	18.2	20.3	17.9	10.0	13.5	12.0	17.6	23.0
	College Degree	8.4	13.1	4.6	4.4	3.3	3.5	7.4	6.7
	Advance Deg	5.1	8.5	2.1	2.6	1.8	1.2	4.0	2.4
	<b>Total</b>	<b>18839</b>	<b>8412</b>	<b>3572</b>	<b>2021</b>	<b>3261</b>	<b>956</b>	<b>1136</b>	<b>790</b>
<b>Prefer Spanish</b>									
	Percent	13.55	0	6.08	9.5	44.66	47.84	63.27	27.9
	<b>Total</b>	<b>4982</b>	<b>0</b>	<b>1713</b>	<b>3280</b>	<b>3018</b>	<b>910</b>	<b>1082</b>	<b>430</b>
<b>Employment</b>									
	Employed	57.6	63.6	51.4	53.3	55.0	39.7	50.6	61.2
	Not in Labor Force	20.6	17.2	30.1	21.0	27.4	31.5	22.4	21.7
	Retired/Disabled	13.7	14.3	8.7	17.2	8.0	16.5	19.7	8.1
	Unemployed	8.2	5.0	9.8	8.5	9.6	12.2	7.2	8.9
	<b>Total</b>	<b>19429</b>	<b>8524</b>	<b>3747</b>	<b>2186</b>	<b>3480</b>	<b>1034</b>	<b>1173</b>	<b>823</b>
<b>Region of Residence</b>									
	Midwest	20.0	29.8	8.5	7.1	10.2	9.7	2.4	4.9
	Northeast	14.2	19.5	14.1	14.9	1.7	65.3	7.5	12.3
	Pacific West	16.0	11.7	31.4	27.5	45.5	7.4	1.8	22.1
	South	31.3	24.5	14.0	36.3	1.9	14.9	85.9	25.6
	West	18.5	14.5	32.0	14.2	40.7	2.7	2.4	35.0
	<b>Total</b>	<b>36598</b>	<b>15478</b>	<b>8486</b>	<b>2214</b>	<b>6674</b>	<b>1859</b>	<b>1704</b>	<b>1539</b>
<b>Occupation</b>									
	Clerical	15.6	15.3	18.2	10.2	13.8	17.0	14.7	19.1
	Craftsman	13.2	13.7	13.0	15.7	13.6	12.8	16.9	11.9
	Farm Laborers and Foreman	1.4	0.4	2.2	5.4	5.4	0.4	0.2	0.7
	Farmers and Farm Managers	0.7	1.2	0.2	0.4	0.4	0.0	0.2	0.0
	Laborers, Except Farm	4.6	3.2	5.6	5.9	7.1	4.0	2.9	5.3
	Managers and Administrators	12.0	16.6	10.1	6.3	7.2	9.5	11.6	9.9
	Operatives, Except Transport	11.0	6.8	12.8	23.0	19.2	16.1	14.2	15.2
	Private Household Workers	1.3	0.7	0.9	1.3	1.2	0.2	1.2	1.9
	Professional, Technical	15.5	21.5	11.9	6.6	7.8	9.9	14.8	10.9
	Sales Workers	4.9	6.2	5.3	3.0	3.7	3.1	5.3	5.6
	Service Workers	15.4	10.7	15.6	17.3	16.2	20.8	14.2	15.8
	Transport Equipment Operatives	4.5	3.6	4.3	4.7	4.4	6.2	3.8	3.7
	<b>Total</b>	<b>12779</b>	<b>6345</b>	<b>2098</b>	<b>1347</b>	<b>2166</b>	<b>453</b>	<b>655</b>	<b>587</b>
Note: Results are weighted to reflect sample stratification									

<b>Table 1, Panel D: Descriptive Statistics, 1993 PSID</b>									
		<b>All Sample</b>	<b>Non-Hisp White</b>	<b>US Born Hisp</b>	<b>Hisp Immig</b>	<b>Mexican</b>	<b>Puerto Rican</b>	<b>Cuban</b>	<b>Other Hisp</b>
<b>Average Age</b>		34	36	23	45	26	27	35	28
<b>Average Years Since Migration</b>		--	--	--	20	19	26	22	21
<b>Average Age at Migration</b>		--	--	--	24	23	22	34	22
<b>Educational Attainment</b>									
	<= 5 <sup>th</sup> Grade	7.7	0.7	5.4	18.6	10.9	12.3	6.6	4.1
	6 <sup>th</sup> to 8 <sup>th</sup> Grade	3.7	3.9	8.4	26.0	15.4	12.2	16.1	9.5
	9 <sup>th</sup> to 11 <sup>th</sup> Grade	12.7	13.6	23.7	10.9	20.8	27.3	10.1	17.1
	High School Degree	36.1	38.8	36.8	2.6	32.5	31.8	37.1	35.2
	College w/o Degree	20.2	21.8	18.7	10.2	14.9	12.2	18.4	24.2
	College Degree	11.9	12.8	4.7	4.4	3.7	3.1	7.4	7.0
	Advance Degree	7.8	8.4	2.3	27.4	1.8	1.2	4.3	3.0
	<b>Total</b>	<b>9454</b>	<b>8789</b>	<b>3521</b>	<b>1744</b>	<b>3118</b>	<b>912</b>	<b>1009</b>	<b>739</b>
<b>Prefer Spanish</b>									
	Percent	4.4	0.0	14.0	26.0	16.3	17.7	22.4	8.0
	<b>Total</b>	<b>1557</b>	<b>2</b>	<b>1068</b>	<b>499</b>	<b>977</b>	<b>292</b>	<b>326</b>	<b>111</b>
<b>Employment</b>									
	Employed	59.5	65.8	54.7	52.6	56.8	40.9	53.4	62.9
	Not in Labor Force	19.1	15.6	27.0	21.3	25.5	31.5	20.5	20.9
	Retired/Disabled	13.9	14.0	9.7	19.0	9.6	17.6	19.7	9.1
	Unemployed	7.5	4.6	8.6	7.1	8.1	10.0	6.5	7.1
	<b>Total</b>	<b>19658</b>	<b>8934</b>	<b>3659</b>	<b>1885</b>	<b>3302</b>	<b>969</b>	<b>1038</b>	<b>780</b>
<b>Region of Residence</b>									
	Midwest	20.8	30.3	8.9	7.5	10.4	10.5	2.7	6.1
	Northeast	13.8	18.8	13.7	14.4	1.5	64.2	7.6	13.4
	Pacific West	15.3	11.7	31.2	27.1	44.5	7.1	2.1	23.4
	South	31.6	24.3	13.5	35.7	1.8	15.8	85.2	23.6
	West	18.6	15.0	32.8	15.4	41.9	2.4	2.4	33.5
	<b>Total</b>	<b>35894</b>	<b>15816</b>	<b>7560</b>	<b>1898</b>	<b>5948</b>	<b>1613</b>	<b>1455</b>	<b>1382</b>
<b>Occupation</b>									
	Clerical	16.1	15.8	19.3	10.7	14.5	21.7	16.9	18.0
	Craftsman	12.4	12.7	12.4	14.4	13.0	10.7	15.1	14.5
	Farm Laborers and Foreman	1.0	0.3	1.7	4.0	3.9	0.0	0.2	0.2
	Farmers and Farm Managers	0.7	1.3	0.2	0.4	0.4	0.0	0.0	0.0
	Laborers, Except Farm	4.9	3.6	5.4	7.1	7.1	5.1	3.7	5.7
	Managers and Administrators	12.1	16.3	10.7	6.4	7.8	7.3	12.7	11.0
	Operatives, Except Transport	10.6	7.1	10.5	22.2	16.9	14.6	11.0	11.5
	Private Household Workers	1.3	0.7	1.6	1.7	1.9	0.2	0.9	2.2
	Professional, Technical	16.0	21.4	12.7	7.0	9.1	8.3	15.7	10.6
	Sales Workers	5.1	6.2	5.1	3.0	3.8	3.6	5.2	6.1
	Service Workers	15.3	11.1	15.5	18.5	16.1	22.4	15.7	14.9
	Transport Equip. Operatives	4.4	3.3	4.9	4.8	5.4	6.1	2.9	5.5
	<b>Total</b>	<b>12532</b>	<b>6387</b>	<b>1914</b>	<b>1136</b>	<b>1925</b>	<b>411</b>	<b>543</b>	<b>511</b>
Note: Results are weighted to reflect sample stratification									

<b>Table 2: Average Occupational Status Scores by Category, 1990 PSID</b>									
		All Sample	Non-Hisp White	US Born Hisp	Hisp Immig	Mexican	Puerto Rican	Cuban	Other Hisp
<b>High –Skill Occupations</b>									
	Professional, Technical, and Kindred Workers								
	Men	87.9	87.9	90.4	81.2	85.9	75.3	93.8	92.2
	Women	78.3	78.4	77.9	75.3	74.5	73.3	78.3	86.0
	Both gender	82.9	83.0	85.9	79.0	81.2	74.7	90.1	90.6
	Managers and Administrators, Except Farm								
	Men	80.9	81.0	80.0	80.0	78.0	79.2	82.9	81.6
	Women	79.6	79.5	82.5	83.3	81.4	82.9	78.9	86.2
	Both gender	80.4	80.5	81.4	81.7	80.0	82.3	80.4	83.7
<b>Medium-Skill Occupations</b>									
	Sales Workers								
	Men	71.1	71.6	66.9	58.8	67.7	61.6	74.0	60.9
	Women	53.8	53.9	49.7	44.2	55.3	45.7	52.7	41.1
	Both gender	62.2	62.7	59.2	52.1	61.0	56.1	71.1	53.4
	Clerical and Kindred Workers								
	Men	57.9	59.2	61.4	51.3	56.4	57.5	53.1	64.4
	Women	53.2	54.1	50.0	48.7	48.5	50.9	58.2	50.4
	Both gender	54.0	54.9	52.6	49.5	49.9	53.5	56.9	54.9
	Craftsman and Kindred Workers								
	Men	54.5	55.1	54.9	50.9	51.8	54.6	53.7	54.7
	Women	53.5	53.7	51.5	49.6	52.8	44.2	53.1	51.5
	Both gender	54.3	54.8	53.8	50.6	52.1	53.3	53.5	53.1
	Transport Equipment Operatives								
	Men	42.0	42.1	43.4	40.8	42.9	40.4	42.0	43.4
	Women	41.2	41.5	40.5	40.8	40.2	48.0	45.4	41.5
	Both gender	41.8	42.0	42.3	40.8	41.9	40.7	43.5	42.5
	Operatives, Except Transport								
	Men	42.6	43.5	37.7	36.1	37.3	42.0	39.2	35.7
	Women	30.4	31.2	29.6	23.5	26.6	29.9	24.5	31.7
	Both gender	35.9	37.2	33.2	29.3	31.2	33.1	30.4	33.9
<b>Low-Skill Occupations</b>									
	Farmers and Farm Managers								
	Men	31.9	31.7	31.0	48.3	42.9	--	31.0	31.0
	Women	33.1	33.1	---	31.0	31.0	--	--	---
	Both gender	32.0	31.9	31.0	46.5	42.0	--	31.0	31.0
	Service Workers, Except Private Household								
	Men	36.2	39.3	35.5	20.6	24.2	26.3	33.0	50.3
	Women	24.9	25.9	24.4	19.0	21.1	26.7	27.1	22.2
	Both gender	27.9	29.3	27.8	19.7	22.3	26.6	29.4	31.4
	Laborers, Except Farm								
	Men	23.2	23.5	24.5	20.4	22.5	25.0	25.3	29.3
	Women	22.5	21.6	25.1	18.8	22.7	23.9	29.6	21.5
	Both gender	23.1	23.1	24.6	20.2	22.6	24.7	26.5	27.8
<b>Very Low-Skill Occupations</b>									
	Farm Laborers and Farm Foreman								
	Men	6.7	4.7	13.4	7.3	9.4	4.0	--	4.0
	Women	6.2	4.0	7.2	7.3	7.2	--	--	
	Both gender	6.6	4.6	11.1	7.3	8.6	4.0	--	4.0
	Private Household Workers								
	Men	2.5	2.5	---	---	---	---	---	---
	Women	4.5	5.6	3.3	2.9	3.2	6.9	2.4	3.5
	Both gender	4.4	5.4	3.3	2.9	3.2	6.9	2.4	3.5

Table 3: Average Wages by Occupation, 1990 PSID

	Total	Hispanic	Non-Hispanic	US Born Hispanic	Hispanic Immigrant	Non-Hisp White
<b>Clerical</b>						
Men	23142	22,674.2	23,882.3	24,554.8	20,793.7	23,645.9
Women	14755	14,263.2	15,300.9	14,560.0	13,772.8	15,263.7
Both gender	16333	16,050.6	16,667.5	16,339.2	15,623.2	16,735.7
<b>Craftsman</b>						
Men	22842	20,952.3	26,297.7	25,207.9	18,964.9	28,298.8
Women	15440	13,611.9	19,400.0	11,187.4	15,690.0	21,700.0
Both gender	22218	20,301.0	25,773.8	23,473.4	18,730.9	27,960.4
<b>Farm Laborers and Farm Foreman</b>						
Men	10880	11,419.8	6,762.5	11,498.2	11,404.5	6,650.0
Women	5391	5,563.4	2,200.0	3,806.4	5,973.4	
Both gender	8898	9,208.7	5,850.0	8,331.0	9,393.0	6,650.0
<b>Farmers and Farm Managers</b>						
Men	11093	18,492.0	8,873.2	---	18,492.0	8,873.2
Women	5577	5,577.0	---	---	5,577.0	---
Both gender	10699	15,263.2	8,873.2	---	15,263.2	8,873.2
<b>Laborers, Except Farm</b>						
Men	13903	13,727.5	14,419.6	14,452.2	13,181.4	15,410.8
Women	7339	8,477.9	5,345.0	6,650.0	9,848.7	5,251.4
Both gender	13118	13,183.1	12,938.1	13,645.1	12,835.2	12,566.2
<b>Managers and Administrators</b>						
Men	49346	27,232.1	59,612.9	30,070.3	24,479.8	60,761.1
Women	21862	21,067.7	22,645.2	19,979.3	22,972.5	22,293.5
Both gender	38531	24,126.4	47,647.5	34,343.0	23,845.2	49,140.7
<b>Operatives</b>						
Men	19553	17,417.3	25,696.9	18,776.8	16,860.7	25,269.7
Women	9682	8,585.8	12,999.3	9,461.0	8,295.8	11,775.3
Both gender	14523	12,888.8	19,348.1	14,359.8	12,347.1	18,859.8
<b>Private Household Workers</b>						
Men	12480	5,087.1	12,480.0	---	---	12,480.0
Women	5710		6,354.2	5,109.4	5,074.2	10,176.0
Both gender	5822.77	5,087.1	6,558.4	5,109.4	5,074.2	10,560.0
<b>Professional, Technical</b>						
Men	39849	33,030.6	44,205.7	35,623.4	29,176.5	45,038.9
Women	21960	19,030.9	23,706.1	19,646.8	18,209.7	23,805.1
Both gender	31118	26,348.9	34,063.8	28,178.0	23,768.2	35,329.4
<b>Sales</b>						
Men	27110	22,712.5	31,018.1	25,138.4	19,747.4	30,541.3
Women	10370	11,035.8	9,929.9	12,338.6	8,831.0	10,141.5
Both gender	18594	17,263.4	19,613.3	18,738.5	15,169.6	20,341.4
<b>Service</b>						
Men	15997	15,394.0	17,513.8	15,677.4	15,216.2	17,392.0
Women	8358.80	7,560.7	9,208.4	7,833.4	7,337.4	8,241.0
Both gender	10965	10,836.1	11,145.3	10,821.6	10,846.7	10,864.3
<b>Transport Equipment Operatives</b>						
Men	20941	20,062.9	22,046.8	19,429.8	20,696.0	21,789.1
Women	12499	15,650.0	9,697.4	20,675.0	10,625.0	11,713.7
Both gender	20027	19,652.4	20,481.4	19,545.6	19,759.2	20,314.6

Note: Results are weighted to reflect sample stratification.



**Table 4: Average Occupational Status Scores, 1990-1993 PSID**

		1990	1991	1992	1993
Non-Hisp White					
Men		63.9	63.7	64.0	63.3
Women		55.6	56.1	55.9	56.0
Hispanic					
Men		47.1	48.3	48.0	48.9
Women		41.0	41.6	43.2	43.7
U.S. Born Hispanic					
Men		52.5	53.4	52.1	53.7
women		44.5	45.5	46.9	47.0
Hispanic Immigrant					
Men		41.0	42.5	42.8	42.8
women		34.8	33.9	35.8	36.1

**Table 5: Average Occupational Status Scores by Hispanic Entry Cohort, 1990-1993 PSID**

		1990	1991	1992	1993
Years since migration	N				
<= 5 years	80	29.7	29.5	26.9	29.4
6-10 years	150	37.9	38.4	39.9	36.5
11-20 years	218	38.6	39.3	42.3	39.2
> 20 yrs	260	47.6	47.9	48.6	47.7

**Table 6: Average Occupational Status Scores by Hispanic Ethnicity and Entry Cohort, 1990 PSID**

	Mexicans	Puerto Ricans	Cubans	Other Hispanics
<b>Less than 5 yrs</b>				
Men	20.5	61.1	62.3	12.3
women	18.4	61.0	42.9	27.8
Both genders	19.7	61.0	52.4	22.9
# of obs	100	12	35	10
<b>6 to 10 years</b>				
Men	28.9	47.4	43.1	41.0
women	22.3	51.9	36.2	35.2
Both genders	26.3	49.8	40.0	37.3
# of obs	36	20	136	49
<b>11 to 20 years</b>				
Men	31.7	46.6	57.9	41.5
women	26.0	31.0	48.7	35.6
Both genders	29.4	39.6	53.2	39.4
# of obs	271	41	92	45
<b>over 20 years</b>				
Men	38.3	44.4	54.3	57.6
women	29.7	42.3	57.2	42.9
Both genders	35.1	43.5	50.7	52.3
# of obs	164	107	216	58
<b>All</b>				
Men	42.6	47.9	68.2	65.6
women	39.7	41.2	54.1	51.1
Both genders	41.2	44	62.2	58.7
total # of obs	571	180	479	162

**Table 7: Occupational Mobility 1990-1993**

	Total Obs.	% people upward	% people downward	Average % change	median % upward	median % downward
<b>Non-Hisp White</b>	5167	26.3	27.1	18.4	36.9	-27.3
<b>Hispanic</b>	2167	31.3	30.0	32.8	65.3	-36
<b>Hisp Immigrant</b>	812	27.2	28.4	30.9	71.4	-39.2
<b>&lt;=5 years</b>	94	34.0	34.0	38.9	63.2	-41.1
<b>6-10 years</b>	168	27.4	32.7	24.6	79.2	-32.8
<b>11-20 years</b>	255	30.2	28.6	45	92.9	-40.8
<b>&gt;20 years</b>	289	22.1	23.5	25.2	61.47	-36.3

Table 8: Definition of Variables

OCCUPATION	Nam-Powers socioeconomic occupational score, continuous.
YEAR90	= 1 if year is 1990, 0 otherwise
YEAR91	= 1 if year is 1991, 0 otherwise
YEAR92	= 1 if year is 1992, 0 otherwise
MALE	= 1 if male, 0 otherwise
EDUCATION	Number of years of schooling, continuous
EXPERIENCE	Number of years of working full time since 18 years of age, continuous. A quadratic specification is also included.
AGE	Age of respondent, continuous. Quadratic and cubic specifications are also included.
YSM	Number of years since a respondent first came to leave permanently in the country. A quadratic specification is also included.
MEXICAN	= 1 if Mexican, 0 otherwise
PUERTORICAN	= 1 if Puerto Rican, 0 otherwise
CUBAN	= 1 if Cuban, 0 otherwise
OTHER HISPANIC	= 1 if all other Hispanic origin, 0 otherwise
SPANISH	= 1 if respondent preferred to have survey interviewed done in Spanish, 0 otherwise.
U.S-BORN HISP	= 1 if respondent is of Hispanic origin and was born in the United States, 0 otherwise.
HISP IMMIGRANT	= 1 if respondent of Hispanic origin, reported a year of migration to the U.S., 0 if Hispanic but did not report a years of migration and or reported having been born in the U.S.
COHORT60	= 1 if years of migration for a Hispanic is before 1960, 0 otherwise
COHORT60-69	= 1 if years of migration for a Hispanic is 1960 to 1969, 0 otherwise
COHORT70-79	= 1 if years of migration for a Hispanic is 1970 and 1979, 0 otherwise
COHORT80-85	= 1 if years of migration for a Hispanic is 1980 to 1985, 0 otherwise
COHORT85-90	= 1 if years of migration for a Hispanic is 1986 to 1990
PACIFIC WEST	= 1 if region of employment is the pacific west, which includes the following states: Alaska California Hawaii Oregon Washington
WEST	= 1 if region of employment is in the west, which includes the following states: Arizona, Arkansas, Colorado, Idaho, Louisiana, Montana, Nevada, New Mexico, Oklahoma, Texas, Utah ,Wyoming
NORTHEAST	= 1 if region of employment is in the northeast, which includes the following states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island ,Vermont
MIDWEST	= 1 if region of employment is in the Midwest, which includes the following states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
SOUTH	= 1 if region of employment is in the south, which includes the following states: Alabama, Delaware, DC, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia
BLACK	= 1 if race is black
ASIAN	= 1 if race is Asian
OTHER RACES	= 1 if race is American Indian and others
WHITE	= 1 if race is white

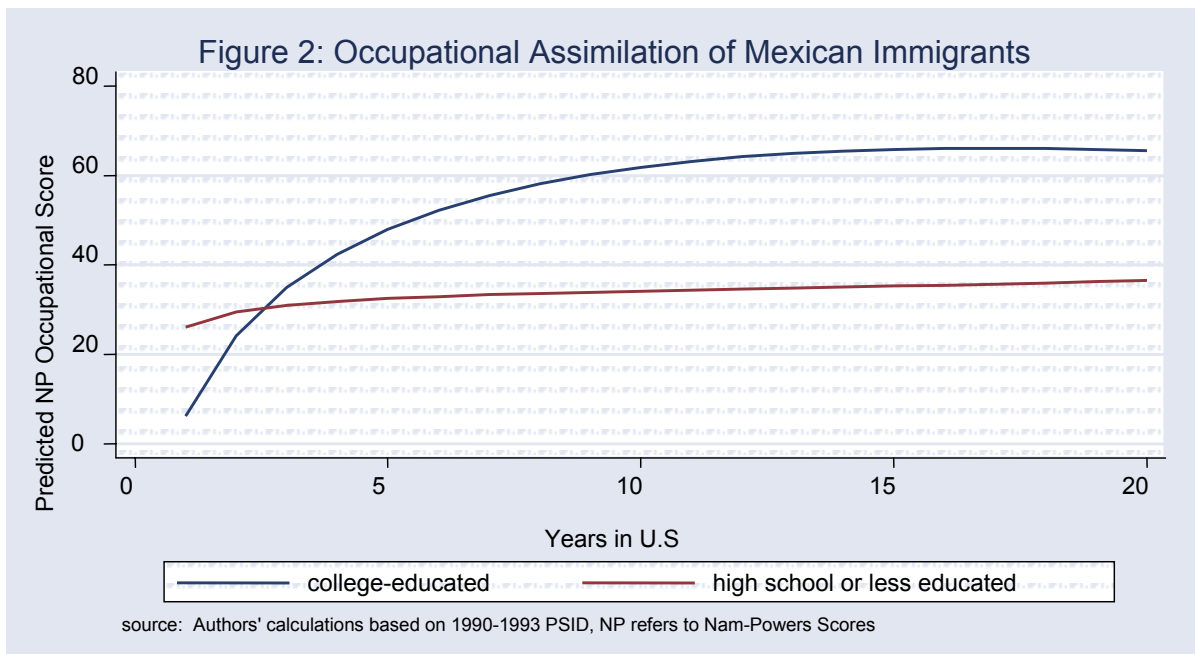
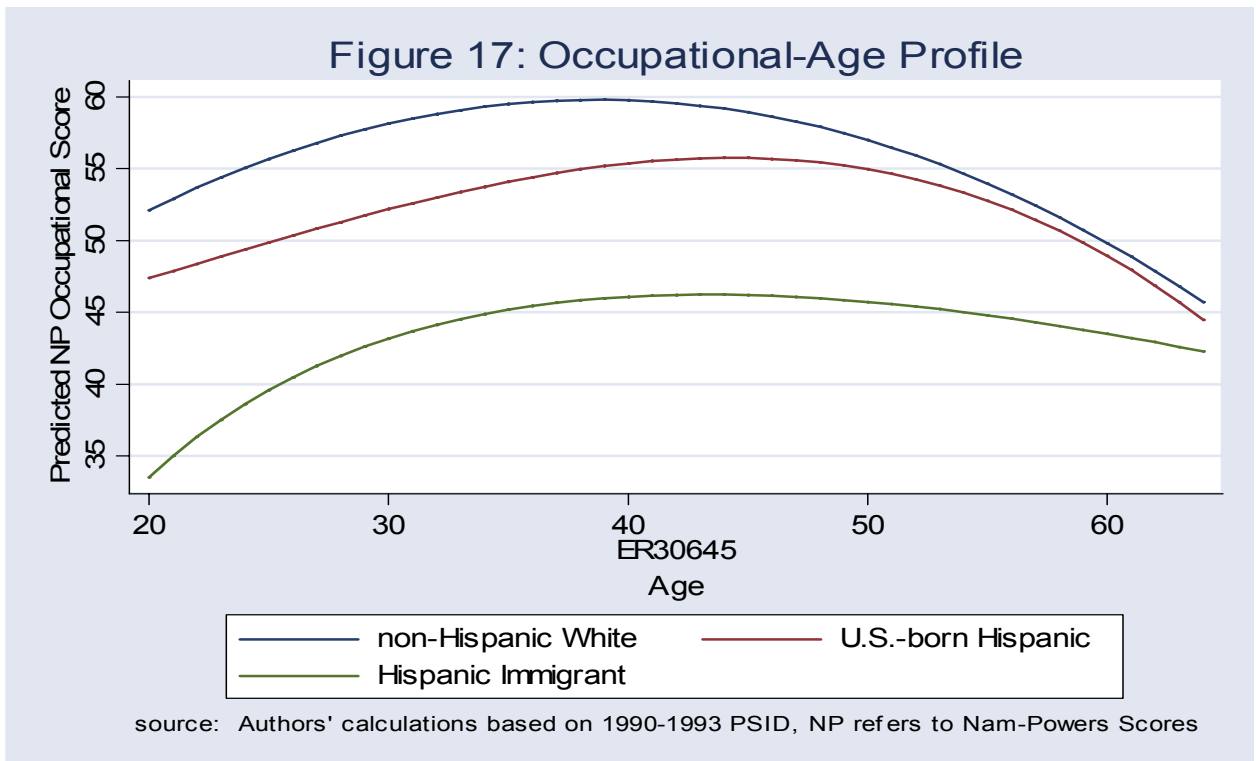
Table 9: Random Effects GLS Estimates, 1990 to 1993 PSID data, Full Sample  
 Dependent Variable = Log of OCCUPATION (standard errors in parentheses)

	(1)	(2)	(3)
Constant	2.058*** (.122)	2.791*** (.115)	2.061*** (.122)
MALE	.141*** (.006)	.144*** (.007)	.141*** (.006)
EDUCATION	.085*** (.002)	---	.085*** (.002)
EXPERIENCE	.022*** (.001)	.022*** (.001)	.022*** (.001)
EXPERIENCE <sup>2</sup>	-.0004*** (.00004)	-.0004*** (.00004)	-.0004*** (.00004)
AGE	.048*** (.010)	.076*** (.009)	.048*** (.010)
AGE <sup>2</sup>	-.001*** (.0003)	-.002*** (.0002)	-.001*** (.0003)
AGE <sup>3</sup>	.086*** (.022)	-.121*** (.0002)	.086*** (.022)
BLACK	-.274*** (.019)	-.316*** (.022)	-.275*** (.019)
ASIAN	-.274 (.019)	.059 (.049)	-.014 (.047)
OTHER RACES	.0031 (.019)	-.007 (.019)	.003 (.019)
U.S. BORN HISPAN	-.063*** (.017)	-.105*** (.018)	-.063*** (.017)
SPANISH	-.089*** (.020)	-.132*** (.021)	-.095*** (.020)
YEAR90	.008** (.008)	.004 (.008)	.007 (.008)
YEAR91	.0167*** (.008)	.013* (.008)	.016** (.008)
YEAR92	.023*** (.008)	.022*** (.008)	.023*** (.008)
PACIFIC WEST	.018 (.019)	.015 (.021)	.018 (.019)
WEST	-.0403** (.018)	-.057*** (.019)	-.040** (.018)
NORTHEAST	.009 (.019)	.008*** (.020)	.0091 (.019)
MIDWEST	-.016 (.017)	-.032 (.018)	-.016 (.017)
HISPAN_IMMIGRANT*YMS	.007* (.004)	.012 (.004)	---
COHORT60	-.178 (.174)	-.583*** (.179)	.084* (.052)
COHORT60-69	-.215* (.120)	-.588*** (.124)	-.033 (.034)
COHORT70-79	-.294*** (.083)	-.635*** (.087)	-.174** (.034)
COHORT80-85	-.238*** (.062)	-.535*** (.065)	-.165*** (.040)
COHORT86-90	-.454*** (.059)	-.646*** (.063)	-.414*** (.054)
R-sq. within	0.0832	0.0373	0.0832
R-sq. between	0.4564	0.2257	0.4558
R-sq. overall	0.2932	0.1400	0.2931
No. of obs.	28733	29569	28733
No. of groups	2899	2927	2899

Table 10: Random Effects GLS, 1990 to 1993 PSID data, Selected Ethnic/Racial Groups  
 Dependent Variable = Log of OCCUPATION (Standard errors in parentheses)

	(4) Non-Hisp White	(5) U.S. Born Hisp	(6) Mexican Immig	(7) Mexican Immig	(8) Cuban Immig	(9) Cuban Immig	(10) P_Rican Immig	(11) P_Rican Immig
Constant	2.320*** (.130)	3.059*** (.332)	1.73 (1.50)	2.610* (1.417)	.5057 (1.695)	2.610** (1.417)	2.68 (3.14)	6.60*** (3.02)
MALE	.130*** (.007)	.093*** (.020)	.326*** (.507)	.347*** (.050)	.220*** (.043)	.242*** (.047)	.136 (.102)	.081 (.098)
EDUCATION	.081*** (.002)	.071*** (.005)	.062*** (.008)	---	.038*** (.009)	---	.076*** (.018)	---
EXPERIENCE	.020*** (.001)	.023*** (.004)	.334*** (.010)	.035*** (.010)	.032*** (.009)	.034*** (.009)	.020 (.021)	.009 (.018)
EXPERIENCE <sup>2</sup>	-.0004*** (.00004)	-.0005*** (.0001)	-.001*** (.0002)	-.001 (.0002)	-.0005*** (.0002)	-.001*** (.0001)	-.0001 (.0005)	.0002 (.0004)
AGE	.026*** (.011)	-.024 (.028)	.049 (.117)	.031 (.111)	.197* (.119)	.237*** (.117)	-.123 (.238)	-.240 (.228)
AGE <sup>2</sup>	-.001** (.0002)	.001 (.001)	-.001 (.003)	-.001 (.003)	-.005** (.003)	-.006*** (.003)	-.0002 (.006)	.006 (.005)
AGE <sup>3</sup>	.036** (.024)	-.067 (.067)	.121 (.240)	.105 (.226)	.425*** (.201)	.495*** (.199)	.024 (.460)	-.497 (.439)
SPANISH_LANG	---	---	-.062 (.050)	-.076 (.049)	.005 (.042)	-.001 (.042)	-.100 (.067)	-.144*** (.067)
YEAR90	.018*** (.008)	-.006** (.020)	.130* (.065)	.135** (.063)	.050 (.060)	.063 (.060)	.040 (.098)	.0003 (.095)
YEAR91	.024*** (.008)	.002 (.020)	.085 (.058)	.092* (.056)	.048 (.052)	.063 (.052)	.065 (.085)	.038 (.084)
YEAR92	.027 (.008)	.021 (.019)	.076 (.054)	.087* (.053)	.045 (.047)	.056 (.047)	.085 (.076)	.088 (.075)
PACIFIC WEST	-.016 (.020)	-.145** (.054)	-.452** (.181)	-.408** (.176)	.308 (.598)	.319 (.628)	-.010 (.478)	-.005 (.488)
WEST	-.034* (.019)	-.167** (.052)	-.594** (.192)	-.512*** (.189)	-.276 (.224)	-.262 (.201)	-.085 (.502)	.384 (.501)
NORTHEAST	-.009 (.019)	-.039 (.074)	-.435 (.336)	-.380 (.216)	.171 (.184)	.222 (.191)	.206 (.121)	.113 (.121)
MIDWEST	-.005 (.018)	-.126* (.072)	-.450** (.220)	-.370* (.216)	-.008 (.350)	.265 (.293)	.279 (.215)	-.139 (.180)
YSM	---	---	.022 (.020)	.040** (.020)	-.001 (.026)	.006 (.026)	-.052 (.044)	-.055 (.043)
YSM2	---	---	.0001 (.0003)	.00002 (.0003)	.000 (.000)	-.00004 (.0004)	.0007 (.0006)	.0008 (.0006)
COHORT60			-.572 (.362)	-.743** (.362)	.231 (.426)	.068 (.436)	1.434** (.773)	1.375* (.735)
COHORT60-69			-.203 (.266)	-.394 (.261)	.207 (.386)	.014 (.396)	1.273*** (.638)	1.211** (.615)
COHORT70-79			-.084 (.181)	-.242 (.178)	.172 (.386)	.036 (.316)	1.036*** (.468)	1.014** (.459)
COHORT80-85			.025 (.128)	-.084 (.126)	-.046 (.215)	-.203 (.221)	1.237*** (.302)	1.142*** (.303)
Rs-sq within	.0840	.0403	.0739	.0723	.0796	.0830	.2006	.1295
R-sq between	.4265	.2804	.3468	.1764	.3497	.2203	.2925	.1777
R-sq overall	.2562	.2041	.2700	.1601	.2772	.1830	.2758	.1712
No. of obs	21263	3757	1204	1284	768	779	261	297
No. of groups	2134	640	267	281	164	165	65	72

Figure 1



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