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Ancestry, earnings, and poverty: A cross section analysis of U.S. immigrants

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ANCESTRY, EARNINGS, AND POVERTY: A CROSS SECTION ANALYSIS OF U.S. IMMIGRANTS

By

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CHAPTER I

INTRODUCTION

The purpose of this dissertation is to study the incidence of poverty and the self-selection-corrected earnings among working male immigrants of three major ancestral groups -- European -, Asian -, and Hispanics -- vis-a-vis their native-born counterparts in the United States.[1] Of particular interest is how the ancestral groups of male immigrants differ from each other and from those of their U.S.-born counterparts in their self-selection-corrected earnings. The U.S. is said to be a country of immigrants. Understanding how unbiased estimates of the earnings of recent immigrants compare to those of natives with the same ethnic background and to those of other immigrants will show how immigrants blend into the U.S. population.

In line with human capital theory, this study will concentrate on the effects of schooling and work experience on earnings. Immigrants may not easily assimilate in a new environment. Immigrants' education, training, and experience are generally different from those of their U.S.-born counterparts of the same ancestry. Immigrants are also different across the nationality in their culture, color, race, creed, and work habits. After a sudden exposure to a new environment, they might find the knowledge and skills acquired in their home countries not

[1]The normative concern for the lowest portion of the income distribution has been increasing in the U.S., especially since the 1960s' "war on poverty". In this respect, a study of poverty among immigrants is of particular interest.

easily transferred and new knowledge and work ethics difficult to acquire.

In this study of poverty and earnings inequality, I am particularly interested in the influence length of residence in the U.S. has on the earnings of immigrants. Chiswick (1978, 1980), Carliner (1980) and DeFreitas (1981) find a positive correlation between length of residence and earnings. However, Borjas (1985, 1987) found a much slower rate or diminishing growth of immigrants' earnings after correcting for a decline over time in the quality of immigrants. Following Ben-Porath's age-earnings profiles and the Mincer-Heckman human capital model, the present study may also suggest whether ancestral groups of immigrants differ from one another as well as from their U.S.-born counterpart in earnings growth by total work experience.

Earnings differences between different race, age and sex class, color, origin of nationality, religion, and ethnicity have often been found across occupation and employment in many societies. See Granier and Marciano (1975) for France, Wadensju (1975) for Sweden, and a very few studies such as Chiswick (1982), Verdugo and Verdugo (1984), and the recent one of Borjas (1985) in the U.S. on earnings of natives and immigrants. A significant earnings difference is found almost everywhere, and the U.S. is no exception.

Low earnings can emerge either because identifiable groups of immigrants receive a lower rate of return on their human capital or because, even though all immigrants are subject to the same earnings function, immigrants have much smaller factor endowments, i.e., they possess smaller amounts of human and non-human assets. This study uses data on ancestry, which became

available for the first time in extensive detail in the U.S. Census of 1980, to estimate the size of these two sources of low earnings and compare the results for immigrants and natives.

What makes this study different from previous ones is a careful correction for immigrants' self-selectivity bias in estimating ancestral effects on earnings. The data base consists of the 1-in-100 sample of 1980 U.S. Census of Population for two states where most immigrants have settled, namely, California and New York. In this data source, personal and family characteristics are given for the family, which forms the study unit in this thesis.

CHAPTER II

A SURVEY OF EARLIER STUDIES

Recent immigrants from third world countries to the United States and the domestic unemployment and recessions have created an active concern about immigration in this country. The U.S. is a country of a low fertility rate and a high immigration rate. The high immigration rate is due to its liberal immigration policy and its possession of a large number of pull factors. A huge number of immigrants every year is being added to its labor force.

Migration

Migration is an investment in human resources, and thus, an activity of promoting efficient resource allocation (Sjaastad, 1962). The migration decision is positively related to individuals' education level (Stubly, 1962; Grubel and Scott, 1966; Garcia-Ferrer, 1980 and T. P. Schultz, 1982).

Recent migration research has dealt mostly with those forces that cause migration. Most research finds that higher earnings are associated with net in-migration and lower earnings with net out-migration. The modern human capital theory of migration was developed about the same time as the general human capital theory which was first presented by Nobel Laureate T. W. Schultz in his presidential address at the 1960 annual meeting of the American Economic Association. Sjaastad wrote his Ph. D. thesis on the topic using the U.S. data under T. W. Schultz in 1960 which was summarized in the Journal of Political Economy

(1962). A few years later, Beales et al. (1969) and Sahota (1968) applied the human capital model to internal migration in developing countries, namely, Ghana and Brazil, respectively.

Following these studies a number of other studies have come out, among which Beales et al. (1969), Bowls (1970), Garcia-Ferrer (1980), T. P. Schultz (1980), and the job expectation theory of migration by Todaro (1969), and jointly Harris and Todaro (1970) may be mentioned. See also Breazeale (1958), Hanna (1958), and Bowman and Meyers (1967). According to these studies, rational people do respond to economic incentives in migration decisions. While Breazeale finds a negative relation between economic level and out-migration and Hanna sees migration to constitute a response to spatial earnings differentials, Sjaastad looks at migration in a costs and returns framework. The empirical investigation of Sahota in Brazil, Garcia-ferrer in Spain, and T. P. Schultz in tropical Africa, and others including Bowman and Meyers, Bowls, and Fields offer a common view of migration that the individual leaves a place where his/her marginal productivity is lower and moves to a place where he/she expects a bright future with higher marginal productivity. The same forces explain migration activities in the U.S. because people from the low-income South migrate to the affluent North. It has been observed that the low-income migrants, e.g., blacks and Chicanos, agglomerate in the metropolitan rings of central cities, and whites tend to locate in suburbs rings.

Todaro (1969) modifies the simple wage differential approach as found in the earlier literature by D. W. Jorgenson (1961), W. A. Lewis (1954), G. Ranis

and J. C. H. Fei (1961) and formulates a rural-urban migration model where expected income differential and employment opportunities play a major role in determining the migration behavior. Harris-Todaro took a broader view of migration in context of aggregate and welfare consideration, which was ignored in the independent work of Todaro (1969). They receive support for this view from Fields and others for migrants of all educational levels, and T. P. Schultz for relatively highly educated migrants in Venezuela. The Harris-Todaro model is rather a general representation of the forces that applies to other societies as well as the U.S. (See Suits, 1985).[2]

A recent challenge by Katz and Stark (1986), though only theoretical, tends to echo Kuznets. They argue that "city lights" per se may attract migrants and that rural-to-urban migration is rational even if the urban expected income is lower than the rural income. The hypothesis awaits an empirical test.[3]

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[2]Suits (1985) applies the Harris-Todaro model in the U.S. where unemployment is treated as exogeneous, rather than endogenous as in the original model. Second, a reduced form is employed where prices and income of the Harris-Todaro model are treated as intermediate economic variables in which the effect of basic changes in the technology and population ultimately induces migration. In this reduced form model , the equilibrium ratio of farm to total labor forces is determined by the productivity of labor in both farm and non-farm employment.

[3]Under a set of stringent assumptions, such as an individual decision making entity, a one period planning horizon, and a global risk aversion, Kats and Stark (1986) produce, theoretically, a strong result that even a small chance of being highly rewarded is enough to induce rural-to-urban migration. However, this model predicts that rural-to-urban migration will occur when the marginal productivity of capital is very high, whereas, Todaro's model does not need such an assumption of higher marginal productivity of capital. While in this model the earnings of urban migrants are assumed to be channeled mainly into investment activity, the Todaro approach assumes a similar consumption-investment ratio both in rural and urban areas.

Immigrants' Earnings

The central concern of this work is to identify the sources of differences in the self-selection-corrected earnings between immigrant groups in relation to their American-born counterparts. Such differences, in turn, help to explain differences in the incidence of poverty among these groups.

The earnings capacities of both foreign-born and the native-born workers depend to a large extent upon their family structure and their investment in education. Individuals' genetic endowment, acquired traits, pre-migration environmental and family culture, and other ancestral characteristics are important determinants of an individual's earnings ability. For example, while non-Hispanic whites have, on avearge, the highest return on their human capital, Mexican-Americans seem to reap more returns to their human capital than blacks (Chiswick, 1982).[4]

Immigrants can be viewed as rational economic agents.[5] Understanding

[4]There are many factors akin to ancestry that can condition the individual's ability. These factors include the individual himself, his/her ability, talent, luck and willingness to learn and do hard work in his/her family and social environment. Parents' education, income, and efficiency for human and material investment in children, and nature of intergenerational transfers are likely to build up workers' personal characteristics. For example, more human bequests and less material wealth transfers between generations increase childrens' earnings ability, which is normally proxied by the level of education. In the intergenerational transfer, equity mindedness of parents also palys an important role. For instance, parents may evenly distribute the inherited property by giving more material wealth to less talented children and less to other children who become embodied with more human capital as well as higher earnings ability (e.g., see references to Becker, 1974, Ishikawa, 1975, Blinder, 1976, and Tomes, 1979).

[5]Rational individuals are also generally assumed to be concerned about their relative income. The immigrant individuals can be presumed to compare their earnings with two different type of neighbors, the U.S.-born workers and the other immigrants. Subject to the degree of inequality aversion, an economic immigrant individual will presumably be concerned about if his/her income goes below that of the national average and his/her concern will be more intense if he/she earns lower than average income of foreigners given the same level of training and other conditions.

the structure of immigrants' earning functions by individuals' ethnity and origin of ancestors vis-a-vis natives is the basis for understanding immigrants' poverty and devising an anti-poverty policy.

As an aid to understanding the determinants of U.S. immigrants' earnings, it will be helpful to review some earlier studies of immigrants' earnings by Wadensjo (1975) in Sweden; Chiswick (1980, 1982); Defreitas (1981); Sowell (1983); Verdugo and Verdugo (1984); Fujii and Mak (1985); Jasso and Rosenzweig (1985); and Borjas (1985, 1987) in the U.S.; Chiswick and Miller (1985) in Australia; Speare and Harris (1985) in Indonesia; Granier and Marciano (1975) in France.

Labor earnings increase with both age and education (Speare and Harris, 1985). But, ethnic or racial groups, immigrants or native-born workers are not the same in age, education, and other characteristics related to their labor earnings. They often differ in earnings due to differences in their schooling, work experience, marital status, family composition, and other demographic characteristics. In an effort to solve the Chiswick's puzzle of why Filipino men receive such low earnings in the U.S., Fujii and Mak (1985) recently found that compared with Chinese, Japanese, and Caucasian men, Filipino men, on average, have less education, less labor market experience, and are less likely to be married. The results of their comparison of Filipino men with Portuguese and Hawaiian men are less conclusive. Although the differences in education, place of residence, and weeks worked favor Filipinos over the Portuguese, the latter are more likely to be married than Filipinos. Similarly, when compared with Hawiians, Filipinos had

more education , were more likely to be married and worked more weeks per year, while Hawiians had slightly more labor market experience (see Fujii and Mak, 1985).

Workers' annual earnings also depend on how many weeks they work throughout the year. The latter factor, in turn, seems to be positively correlated with workers' level of schooling and training. For example, as in Sowell (1983), Mexican-American families have more earnings than black families. One reason is that Mexican-Americans work relatively more hours per unit of time. Mexican-Americans are between blacks and white in number of hours worked per year (e.g., references to Chiswick, 1982; and Verdugo and Verdugo, 1984). In addition to their lower human capital, Filipino men also work fewer weeks per year than Caucasian, Chinese, and Japanese, and earn less than the latter groups (e.g., see references to Fujii and Mak, 1985).

Returns to education, age, and experience may vary among the groups of workers in the same labor market depending on their level of these characteristics. Generally, highly educated workers reap more returns subject to the constraint of diminishing returns to education. Verdugo and Verdugo (1984) estimated an equation for whites, deriving the coefficients and the intercept, and substituting the minority means into the equation to determine the expected Mexican-Americans' mean earnings. Thus, they show that if Mexican-Americans and blacks received the same return to education (as whites) and an equal opportunity to have jobs in any occupation, they would receive the same earnings as white males.

Reward to schooling and experience may also vary between immigrants and native-born workers of the similar level of education and experience because the former group's experience is very little transferable to the labor market of destination country. As in Chiswick and Miller (1985), the effects of schooling and experience in the country of origin on earnings for overseas-born workers in Australia are smaller than effects for the native-born because of the limited international transferability of skill and training received in the country of origin. For Australian, an extra year of schooling raises earnings by 8.2 percent, while an extra year of schooling raises earnings only by 6.6 percent for the overseas-born. Chiswick and Miller (1985) used the Blinder's Methodology -- $Y_F = \beta_{Nj} X_{Fj}$ -- where Y_F was the predicted value of natural logarithm of earnings of the overseas-born in Australia, β_{Nj} was the estimated coefficient of the j^{th} explanatory variable in the natives' earnings function. Using β_{Nj} and X_{Fj}, Y_F is estimated and found to be 4 percent higher than the observed mean log of earnings of the native born Y_N. This means that the earnings of immigrants would be 4 percent higher than the native-born if they had the same return to their demographic and skill characteristics. This may be reflecting the effects of immigrants' favorable self-selection on immigrants' earnings in Australia.

Those workers who are fluent in English have an easy time in the labor market, and maintain better occupational and economic status. Retention of a different mother tongue may not, however, hinder the immigrant's economic progress provided they are proficient in English (see Tienda and Neidert, 1984).

It is not unlikely that some racial - or ethnic - or ancestral minority

groups of workers, or immigrants as opposed to native-born workers, tend to concentrate on lower status occupations because of the above mentioned differences between them in skills characteristics. According to Wadensjo (1975) in Sweden, immigrants and Swedes receive approximately equal pay once differences in workers' occupational - and industrial distribution, age, sex, shift and piece-rate are taken into account.

Social status as well as earnings of immigrants are also related to immigrants' degree of cultural assimilation in the country of destination. The earnings of foreign born workers in France compared with those of French nationals are examined in Granier and Marciano (1975). Their analysis of men's and women's wages shows that foreign workers living alone earn about the same as French workers in the same situation, but that those living with their families are much less well off, a result that they ascribe to differences in training and social status.

It may be that immigrants' self-selection characteristics vis-a-vis their nonimmigrant countrymen such as their attitude toward hard work and risk-preference are likely to make them different even from the average workers in the labor market of their new country. Such values transmitted to their children by the immigrant father can even make their children relatively more productive in the labor market. Compared with Australian native males born to native parents, having an overseas-born father and an Australian-born mother is associated with 2.9 percent higher earnings and an overseas-born mother with a native father implies a statistically insignificant 1.7 percent higher earnings, but

when both parents are foreigners, earnings are lower by a statistically significant 2.6 percent. The best parental nativity combination (overseas-born father and Australian-born mother) for an Australian male presumably combines the advantage of learning the language and culture of the country from the Australian-born mother and the favorable self-selection characteristics of the labor market ability and motivation from the immigrant father (see Chiswick and Miller, 1985). An alternative explanation given is that there is an intergenerational transmission of fathers' success and that the more successful immigrant men in the parent's generation married Australian-born women. A similar pattern aparently exists in the U.S. where standardized earnings are 5 percent higher for white men with one or both parents who are foreign-born (Chiswick, 1977). Using men with native-born parents as the bench mark, earnings are 7.7 percent higher if only the father is foreign-born. Thus, Chiswick concludes that the disadvantages the foreigners face appear to be overcome by other factors, particularly if the father is foreign-born.

The knowledge and experience acquired through residency form a part of human capital and may overcome initial education and their differences for in immigrants. In that case, immigrants with longer duration of residence are expected to have relatively higher earnings growth than new immigrants, other things being equal. However, the following empirical investigations do not unambiguously confirm this hypothesis, though that does not mean that further tests are not in order.

In an earlier work, Chiswick (1980) analyzed the earnings growth of a

small sample of adult male immigrants from the National Longitudinal Survey. He found that the earnings of recently arrived immigrants are less than those who have been in this country for a longer period, other things being equal. According to Chiswick, the growth of immigrants' earnings over time leads to the existence of an overtaking age, at which point the earnings profiles of the native-born and immigrants cross. This overtaking point is estimated to be around 10 to 15 years after immigration.

DeFreitas (1981) uses 1965 and 1970 occupation variables available in 1970 Census data and finds either no differences in earnings growth between natives and foreign-born people or a slower rate of upward mobility for the foreign-born workers. Snipp and Tienda (1984) finds no evidence that Mexican immigrants experience greater upward occupational mobility than Mexican-Americans born in this country. Borjas (1985) studied the earnings growth experienced by specific immigrant cohorts during 1970-1980 based on 1970 and 1980 Census data. In addition to the cohort variables, Borjas includes education, experience, marriage, health, and regional dummies in his earnings function. His estimates show that within cohorts, earnings growth for immigrant groups is significantly smaller than the growth predicted by cross section regressions. And he thinks this may be due to the quality deterioration in immigrants over time. The partial effect of duration of immigrants' residence in Australia on their earnings is statistically significant and ranges from 0.9 percent to 1.2 percent for immigrants from New Zealand, the Middle East, Eastern Europe and Asia, which include only one-fifth of the overseas-born (see Chiswick and Miller, 1985).

The characteristics of immigrants' country of origin such as the origin country's economic standard, inflation rate, information system about the U.S. work opportunities and earnings, and the origin country's political system, income distribution, and the distance between origin country and the U.S., all affect the immigrant's earnings in the U.S., though indirectly. Most of these points were raised in Jasso et al (1985), and have recently been accounted for in an effort to correct for immigrants' self-selection by Borjas (1987). They have documented the correlation between immigrant's above noted country characteristics and their earnings in the U.S. Further, as the assimilation effect, Borjas shows a quality decrease in recent LDCs' immigrants to the U.S.

In the light of the above empirical discussion on earnings function, the earnings equation to be estimated in the present work is closely related to those used by Chiswick (1978, 1980, 1982), Mincer (1974), Verdugo and Verdugo (1984), and Heckman (1985), Fujii and Mak (1985).[6] The present study focuses on deter-

[6]In Mincer (1958), earnings are simply a function of schooling, where the coefficient of schooling will be generally a rate of return on investment in education. It can't capture other important factors that may affect earnings. Following Ben-Porath (1967) who estimate earnings as a function of age and age-squared and have a good fit of their regression, Mincer (1974) introduces experience and experience-squared in his simple earnings function. In his study of poverty in Panama, Heckman (1985) includes background variables, market conditions, an intensity-of-work variable, and unemployment. He finds that the rate of return on schooling is higher in Panama than in the U.S. and other advanced countries, but lower than estimates reported for other Latin American countries. However, the rate of return on schooling in urban Panama and the U.S. may be comparable. The cotribution of experience to the growth rate of earnings is low and earnings peak earlier in Panama than the U.S. This may be due to the fact that Panama service sectors do not have a provision for job training as does the U.S. Family background variables in Heckman's study affect male earnings significantly. Verdugo and Verdugo in the U.S. use age and education as the component of human capital variables, number of hours worked per year as the unemployment variable, occupational status as one of the control variables, marital status as the demographic variable, and they use industry and sector of employment, region of residence, metropolitan and non-metropolitan residents as the structural and geographical components of labor market, in estimating their earnings function.