THE EARNINGS OF MALE HISPANIC IMMIGRANTS IN THE UNITED STATES

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This paper presents an empirical analysis of earnings differentials among male Hispanic immigrants in the United States. The principal finding of the study is that there are major differences in the rate of economic mobility of the various Hispanic groups. In particular, the rate of economic progress by Cuban immigrants exceeds that of other Hispanic groups, the result in part of the fact that Cuban immigrants have invested more heavily in U.S. schooling than other Hispanic immigrants arriving in this country at the same time. The author concludes that these findings are consistent with the hypothesis that political refugees are likely to face higher costs of return immigration than do "economic" immigrants, and therefore the former have greater incentives to adapt rapidly to the U.S. labor market.

In 1978 there were 12.05 million individuals of Hispanic origin living in the United States.[1] The very fast growth of this group, in terms of both immigration and birth rates, has led to the prediction that Hispanics will soon outnumber blacks as the nation's largest minority group.[2] The socioeconomic and political implications of this fact are far reaching and will surely attract much study in the next decade. Surprisingly, however, little is known about the experience of Hispanics in the United States labor market. The voluminous literature on labor market discrimination developed by economists in the last twenty years, for example, barely addresses questions related to the economic status and mobility of Hispanics in the United States.

In recent years, a small number of economists and sociologists have begun the systematic study of various labor market characteristics of Hispanics.[3] Their studies have

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[1]U.S. Department of Commerce, *Persons of Spanish Origin in the United States: March 1978*, Series P-20, No. 328, issued August 1978, p. 5.

[2]See, for example, the cover story on Hispanics entitled "It's Your Turn in the Sun," in *Time* Magazine, October 16, 1978, pp. 48–61.

[3]See, for example, Ronald Angel and Marta Tienda, "Household Composition and Income Generation Strategies Among Anglos, Blacks, and Hispanic Origin Groups in the U.S.," mimeograph, University of Wisconsin, 1980; Geoffrey Carliner, "Wages, Earnings and Hours of First, Second, and Third Generation American Males," *Economic Inquiry*, Vol. 18, No. 1 (January 1980), pp. 87–102; Barry R. Chiswick, "The Effect of Americanization on the Earnings of Foreign-Born Men," *Journal of Political Economy*, Vol. 86,

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Table 1. Characteristics of Hispanics in the United States as of March 1978.

Hispanic Groups	*Population in 1000s*	*Median Age*	*Percent Completed High School*	*Median Income of Males*	*Median Income of Families*
Mexican	7,151	21.3	34.3	$7,708	$11,742
Puerto Rican	1,823	20.3	36.0	8,051	7,972
Cuban	689	36.5	49.1	7,845	14,182
Central or South American	863	26.8	—	—	—
Other	1,519	21.5	58.5[a]	7,875[a]	12,500[a]
Total Hispanics	12,046	22.1	40.8	7,797	11,421
Non-Hispanics	202,113	30.0	67.1	10,261	16,284

[a] Includes Central or South American Hispanics.
Source: U.S. Department of Commerce, *Persons of Spanish Origin in the United States: March 1978*, Series P-20, No. 328, issued August 1978.

focused mainly on two issues. First, they have investigated how the earnings of Hispanics compare to the earnings of equally skilled non-Hispanic whites. Interestingly, the evidence by Gwartney and Long and by Reimers suggests that the wage differential between Hispanics and non-Hispanic whites is mostly, and in some cases entirely, due to differences in observable skill characteristics.[4] The second focus of the literature arises from the fact that a large fraction of the Hispanic population is composed of immigrants. The studies of Carliner and Chiswick show that although the earnings of Hispanic immigrants are a positive function of years since immigration, the assimilation process faced by some Hispanic immigrants may differ from that experienced by earlier, non-Hispanic immigrant groups.[5] The objective of this paper is to present an empirical analysis that complements and expands the earlier studies by focusing on the earnings of male Hispanic immigrants living in the United States.[6]

One basic theme will be stressed throughout: The Hispanic population in the United States is *not* the homogenous group it is widely regarded to be. Evidence of this fact is presented in Table 1, which provides some relevant statistics on the composition of the Hispanic population. Its five major groups are individuals of Mexican, Puerto Rican, Cuban, or Central or South American origin, and "others." As can easily be seen, summary statistics on age and education, as well as personal and family income, show a large variance among the five groups. Indeed, the differences among the

No. 5 (October 1978), pp. 897–922; Barry R. Chiswick, *An Analysis of the Economic Progress and Impact of Immigrants*, Final Report for Grant No. 21-06-78-20, Employment and Training Administration, U.S. Department of Labor; Walter Fogel, "Research on Hispanics in the Labor Market," mimeograph, University of California, Los Angeles, 1979; James D. Gwartney and James E. Long, "The Relative Earnings of Blacks and Other Minorities," *Industrial and Labor Relations Review*, Vol. 31, No. 3 (April 1978), pp. 336–46; Alejandro Portes, "Dilemmas of a Golden Exile: Integration of Cuban Refugee Families in Milwaukee," *American Sociological Review*, Vol. 34, No. 4 (August 1969), pp. 505–18; and Cordelia Reimers, "Sources of the Wage Gap Between Hispanics and Other White Americans," mimeograph, Princeton University, 1980.

[4] Gwartney and Long, "Relative Earnings of Blacks and Other Minorities"; Reimers, "Wage Gap Between Hispanics and Other White Americans."

[5] Carliner, "Wages, Earnings, and Hours," and Chiswick, *Economic Progress and Impact of Immigrants*.

[6] To simplify the discussion, the use of the word "immigrant" will be a bit unorthodox. In particular, the group of Hispanic immigrants includes not only Hispanics who *immigrated* into the United States from other countries, but also individuals born in Puerto Rico who *migrated* to other regions of the United States.

various Hispanic groups may be larger than the differences between some Hispanic groups and the native-born, non-Hispanic population.

This paper will attempt to measure the extent of differences in the rate of economic mobility among immigrants in various Hispanic groups. Moreover, it will also present direct evidence documenting that, to a large extent, differences in the rate of human capital accumulation in the United States are responsible for intra-Hispanic differences in economic mobility.

Framework

The theory of human capital views geographic migration as an investment.[7] The individual's decision rule indicates that migration is the optimal activity whenever the discounted utility flow at the place of destination exceeds the discounted utility flow at the place of origin, net of both psychic and pecuniary mobility costs. This simple framework should provide a description not only of internal geographic migration flows in the United States, but of international flows as well.

Clearly, when the decision to immigrate to the United States is motivated by better economic conditions in the United States than in the country of origin, the applicability of the decision rule is obvious. What is less obvious is the applicability of the same theoretical framework to the so-called non-economic immigrants. In particular, one of the main characteristics of the Hispanic immigration is that a significant fraction immigrated to the United States as political refugees. The immigration of Cubans is an excellent example of geographic mobility motivated by "exogenous" political changes in the country of origin. Despite the seemingly different reasons for the geographic move of such immigrants, economic theory suggests that the fundamental reason for their immigration—that the individual's *utility* stream is higher in the United States than in the country of origin—is no different from that of any "economic" immigrant. Thus the same utility-maximizing framework will explain who the migrants are likely to be.[8]

It is important to note, however, that even though the *determinants* of the immigration decision are the same, the *consequences* of immigration are likely to be very different when comparing political refugees to economic immigrants. In particular, the *timing* of the geographic move is likely to be more exogenous for political refugees. This implies that relatively little planning may have been done in preparation for the move.[9] The similarity between this experience and that of a layoff in the labor market should be noted. In both cases, the individual is "fired" from his place of employment (country) and must look for new opportunities; individuals who "quit" their employer (country), on the other hand, have usually been involved in on-the-job search and will therefore have a short-run advantage in finding an acceptable job. The implication of the analysis is that at least in the first few years after immigration, Cuban refugees would do relatively worse in the U.S. labor market. More generally, differences in the nature of the immigration are likely to generate differences in the initial labor market experiences of the Hispanic groups.

In fact, there are additional factors creating disparities in the rate of economic mobility among the Hispanic groups. In particular, one important by-product of the political upheaval in the country of origin is that it makes return immigration

[7]An excellent application of the human capital hypothesis to the migration decision is given in Solomon W. Polachek and Francis W. Horvath, "A Life Cycle Approach to Migration: Analysis of the Perspicacious Peregrinator," *Research in Labor Economics*, Vol. 1 (1977), pp. 103–49.

[8]This result is very similar to the lack of distinction between quits and layoffs in the modern theory of labor turnover. See, for example, Gary S. Becker, Elisabeth M. Landes, and Robert T. Michael, "An Economic Analysis of Marital Instability," *Journal of Political Economy*, Vol. 85, No. 6 (December 1977), pp. 1141–87; and George J. Borjas and Sherwin Rosen, "Income Prospects and Job Mobility of Younger Men," *Research in Labor Economics*, Vol. 3 (1980), pp. 159–81.

[9]Of course, some "on-the-job" search may have been present for political refugees since the political upheavals may have been anticipated by those individuals most likely to be affected by the changes in the social structure.

extremely difficult. That is, Cubans in the United States, for various political reasons, cannot easily return to their homeland. The costs of return mobility are thus substantially lower for the other Hispanic groups. The descriptive study by Lewis suggests that many Puerto Rican immigrants in New York are not planning on staying in the United States, for example, and that travel between this country and Puerto Rico for extended periods occurs very frequently.[10] Similarly, the work of Heer and a longitudinal study by Portes and Bach in which Mexican immigrants were re-interviewed three years after entry into the United States reveals that at least 10 percent of the immigrants returned to Mexico in the three-year period.[11]

Thus both the Puerto Rican and Mexican immigrations, due to the low costs of return mobility, are characterized by high "turnover" rates. The human capital hypothesis would predict that where expectations of job separation (in this case, "country separation") are high, there are likely to be fewer incentives to invest in U.S.-specific capital or, in other words, to adapt rapidly to the U.S. labor market.[12] On the other hand, immigrants with very high costs of return immigration will have greater incentives to invest in U.S.-specific human capital and, therefore, can be expected to progress rapidly in the U.S. labor market. A selectivity bias is likely to weaken this effect, however. That is, among individuals who can easily return to the country of origin only those who fared badly in the United States will incur the costs of permanent return mobility. This leaves the most successful immigrants behind, in the United States. Thus comparisons between the average political refugee, who cannot return, and only the most successful economic immigrants will *underestimate* the effect of the refugee experience on the rate of economic mobility of immigrants.

Finally, Brenner and Kiefer have argued that the refugee experience alters the individual's perceptions of the value of general and specific human capital.[13] That is, as with other refugee populations, such as Jews and Hungarians, the decision to migrate to the United States led to the loss for Cuban refugees of all physical capital accumulated in Cuba. Thus the refugee experience is likely to make clear to the individual the importance of general human capital investments in providing flexibility for dealing with unexpected political changes. Since neither physical capital nor human capital specific to the country of origin is easily transferable, the refugee experience may well create further incentives for Cuban refugees to differ from other Hispanic immigrants in both the rate and the type of human capital investments made in the United States.

This discussion suggests that intra-Hispanic differences in the rate of economic progress among immigrants are due to: (a) the nature of the migration decision (economic immigrants versus political refugees) and (b) the incentives for the immigrants to adapt to the U.S. labor market (the costs of return immigration). It should be clear that the analysis can be easily extended to study the labor market experiences of non-Hispanic immigrants. In fact, since the United States attracts large numbers of political refugees from various countries, a careful study of their "Americanization" process may lead to important insights into the role of specificity in the labor market.

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[10]Oscar Lewis, *La Vida* (New York: Random House, 1965).

[11]David M. Heer, "What is the Annual Net Flow of Undocumented Mexican Immigrants to the United States?" *Demography*, Vol. 16, No. 3 (August 1979), pp. 417–23; and Alejandro Portes and Robert L. Bach, "Immigrant Earnings: Determinants of Economic Attainment Among Cuban and Mexican Immigrants in the United States," *International Migration Review*, Vol. 14, No. 3 (Fall 1980), pp. 315–41.

[12]The hypothesis that turnover rates affect human capital investment incentives is discussed and tested in Jacob Mincer and Solomon W. Polachek, "Family Investment in Human Capital: Earnings of Women," *Journal of Political Economy*, Vol. 82, No. 2, Part II (March 1974), pp. S76–S108; and George J. Borjas, "Job Mobility and Earnings Over the Life Cycle," *Industrial and Labor Relations Review*, Vol. 34, No. 3 (April 1981), pp. 365–76.

[13]Reuven Brenner and Nicholas Kiefer, "The Economics of Diaspora," mimeograph, University of Chicago, 1978.

Empirical Analysis

The data used in the analysis are from the 1976 Survey of Income and Education (SIE). There are 10,620 Hispanic-origin individuals in the sample. For each individual we can obtain data on both traditional human capital variables like earnings, education, labor supply, and health and on variables indicating the country of origin and the year of immigration if the individual is an immigrant. The empirical analysis conducted in this paper is restricted to male immigrants aged 18–64 in 1975 who reported positive annual earnings in that year, positive hours worked per week during the year, and a positive number of weeks worked during the year. There are 1172 individuals for whom the data satisfy these restrictions.

The first step is to obtain an overall view of how Hispanics have fared in the labor market in terms of their wage rates in the years since immigration (as assimilation takes place). This is done in the first column of Table 2, which presents selected coefficients from an earnings function in which the dependent variable is the individual's (ln) earnings deflated by the cost-of-living index calculated for the individual's SMSA by the Bureau of Labor Statistics.[14] The cost-

[14]The August 1976 cost-of-living index is available for 40 SMSAs in U.S. Department of Labor, *Handbook*

Table 2. Rate of Economic Mobility by Hispanic Group.[a]
(*t*-ratios in parentheses)

Variable	*All Hispanics*	*Mexican*	*Puerto Rican*	*Cuban*	*Central-South American*	*Other*
		Panel A. Dependent Variable = *LCWAGE*				
Y60B	.0817	.0384	.0807	.1715	.2100	−.1654
	(1.56)	(.46)	(.64)	(1.17)	(1.57)	(−.98)
Y60A	.1852**	.1165	−.0312	.3280*	.2401	.1573
	(3.13)	(1.13)	(−.25)	(2.23)	(1.42)	(.78)
Y50	.2132**	.1927*	.0778	.4170*	.3861*	−.2461
	(3.61)	(2.00)	(.72)	(2.22)	(1.99)	(−1.20)
Y40	.3833**	.2537*	.4106**	.4673	.2558	−.0851
	(4.58)	(1.95)	(2.77)	(1.46)	(.62)	(−.26)
R^2	.182	.161	.226	.277	.235	.490
		Panel B. Dependent Variable = *LCANN*				
Y60B	.0755	.0889	.1640	.5203**	−.1603	−.0758
	(1.17)	(.87)	(1.17)	(3.07)	(−.85)	(−.32)
Y60A	.1904**	.1453	.0670	.4875**	.2632	.0649
	(2.60)	(1.16)	(.48)	(2.86)	(1.11)	(.23)
Y50	.1998**	.1573	.0978	.6929**	.4778	−.1419
	(2.73)	(1.33)	(.81)	(3.18)	(1.75)	(−.50)
Y40	.3106**	.2561	.3137	.5714	.2460	−.1687
	(3.00)	(1.61)	(1.89)	(1.54)	(.43)	(−.37)
R^2	.289	.253	.298	.456	.299	.563
N	1172	485	265	166	176	80

[a]The vector of variables *X* introduced in the text is held constant in all the regressions. Column 1 also controls for membership in a particular Hispanic group, such as Mexican and/or Puerto Rican.

*Significant at the .05 level in a two-tailed test.

**Significant at the .01 level in a two-tailed test.

of-living deflation is conducted since it is extremely important to control for regional differences in wage levels because the various Hispanic groups tend to concentrate in different geographic regions. For example, Mexicans are heavily concentrated in the Southwest, Cubans in South Florida, and Puerto Ricans in the New York metropolitan area. Hence purely geographic wage differences are likely to create intra-Hispanic wage differences and bias the conclusions of the analysis.[15]

The regression estimated is the typical human capital earnings function:

$$(1)\ LCWAGE \text{ or } LCANN = X\beta + \alpha_1 Y60B + \alpha_2 Y60A + \alpha_3 Y50 + \alpha_4 Y40 + \varepsilon$$

where $LCWAGE$ is the cost-of-living deflated (ln) wage rate; $LCANN$ is the cost-of-living deflated (ln) annual earnings; $Y60B$ = 1 if the individual immigrated in 1965 – 69; $Y60A$ = 1 if the individual immigrated in 1960 – 64; $Y50$ = 1 if the individual immigrated in 1950 – 59; $Y40$ = 1 if the individual immigrated prior to 1950. The omitted dummy variable for year of immigration indicates whether the individual immigrated in the 1970s. The vector of variables held constant in the regression, X, includes: total years of education completed, years of education obtained in the country of origin, years of labor market experience (defined as Age – Education – 6), years of labor market experience squared, whether health affects work activity, whether the individual is a veteran, whether the individual speaks English well or very well, marital status, whether the individual lives in an SMSA, whether the individual is currently enrolled in an educational program, and a measure of tenure on the present job.[16]

As can be seen in Panel A, which uses the (ln) wage rate as the dependent variable, the wage of Hispanic immigrants is positively related to the number of years since immigration. For example, Hispanics who immigrated in the late sixties have a wage rate that is approximately 8.2 percent greater than the wage of the most recent immigrants. This statistic increases to 19 percent for immigrants of the early 1960s; to 21 percent for individuals who immigrated in 1950 – 59; and to 38 percent for those who immigrated prior to 1950. These results thus confirm the findings in earlier studies that Hispanic immigrants *as a group* have adapted quite well to the U.S. labor market.[17]

Panel B of Table 2, which uses (ln) annual earnings as the dependent variable, shows similar results. Note, however, that the growth curve of annual earnings with years since immigration is flatter than that found for wage rates. The assimilation process seems, therefore, to be associated not only with an increase in wage rates, but with a decrease in labor supply as well.

The remaining columns in Table 2 replicate the analysis for each of the individual Hispanic groups. Panel A shows that the wage rates of Mexicans who arrived in the 1960s are *not* significantly different from the wage rates of Mexicans who immigrated during the 1970s. Mexicans who immigrated before 1959, however, have 20 – 25 percent higher wage rates than the most recent immigrants. Thus, although the results with Mexican immigrants show some progress in the U.S. labor market, they also indicate that the rewards of the assimilation process are not obtained in the first fifteen years after immigration.

The Puerto Rican regression shows an even slower rate of economic advancement. In particular, individuals who immigrated

of Labor Statistics (Washington, D.C.: G.P.O., 1979). These statistics also include cost-of-living indexes for the nonmetropolitan populations in four regions of the United States: Northeast, North-Central, South, and West. These nonmetropolitan indexes were used for individuals in the SIE not living in an SMSA. For the SMSAs where no cost-of-living index is available, the average cost of living for the SMSAs in the region was used.

[15]Of course, the cost-of-living index probably contains measurement error and the empirical analysis is not completely free, therefore, of the problem discussed in the text. However, I also experimented deflating the individual's wage by the average white non-Hispanic wage in the SMSA. The results were qualitatively similar.

[16]The SIE only contains information on the number of job changes in the past year. Thus I constructed a variable indicating whether the job is new (tenure less than one year) or old (tenure greater than one year).

[17]See, for example, Chiswick, *Economic Progress and Impact of Immigrants.*

any time between 1950 and 1969 are no better off than Puerto Ricans who immigrated in the 1970s. That suggests that current Puerto Rican immigrants will have to wait over twenty-five years before the results of the assimilation process will be reflected in their wage rates.

The results for Cuban immigrants are strikingly different. Cubans arriving in the second half of the 1960s have about 17 percent higher wage rates than those arriving in the seventies; those arriving in the early 1960s have 33 percent higher wage rates; and those arriving before the political upheaval in Cuba have about 40–45 percent higher wage rates. Therefore, the results indicate a very high rate of progress for Cuban immigrants in the U.S. labor market.

Finally, the results for Central or South American immigrants resemble those found in the Cuban sample: a high rate of economic progress is characteristic of this immigrant group. The results for the "other Hispanic" sample are mixed, probably because of the highly heterogeneous nature of the sample. In any case, the sample size is relatively small.

The results in Panel A of Table 2 are very important because they indicate unambiguously the significantly different rates of economic mobility experienced by the different Hispanic groups in the U.S. labor market. In particular, by looking *within* each Hispanic group any selectivity problems concerning the nature of the immigration and the different socioeconomic status of the various immigrant groups at the time of immigration are minimized. The results simply state that the economic status of recent Mexican and Puerto Rican immigrants will not improve very much in the next fifteen to twenty years, while that of recent Cuban immigrants will show signs of improvement within five to ten years. It is worthwhile to note that these results are consistent with the hypothesis developed earlier: political refugees are likely to adapt faster to the U.S. labor market.

In Panel B of Table 2, the results are replicated using the (ln) annual earnings of the individual as the dependent variable. It should be noted that the main change from Panel A occurs in the sample of Cuban immigrants. In terms of annual earnings, all Cuban immigrants who arrived in the United States prior to 1970 have about 50 percent higher earnings than the most recent immigrants. This result implies a significant, and very rapid, shift in the labor supply of Cuban immigrants as a result of the assimilation process. Whether this shift is due to changes in search unemployment, formal human capital accumulation, or leisure is a subject that requires further research.

At this point, it is worthwhile to discuss two important inferences suggested by Table 2. First, it can be argued that the faster economic progress made by Cubans simply reflects the fact that the average Cuban is a refugee from the "cream" of the Cuban middle class who went into exile after the communist takeover in 1959. This argument, although partly valid, would not be able to explain the progress of Cubans who immigrated prior to the revolution. Table 2 shows that even those Cubans immigrating prior to 1950 are substantially better off than the most recent migrants.

Second, since Mexican and Puerto Rican immigrants are characterized by high probabilities of return immigration (relative to Cuban immigrants), only the most successful Mexican and Puerto Rican immigrants remain in the United States permanently. This selectivity bias, therefore, suggests that the differences between Cubans and the other Hispanic groups documented in Table 2 are, in fact, *underestimates* of the true differences. Hence Table 2 provides very strong evidence that the Cuban immigrant has adapted much faster to the U.S. labor market than the average non-Cuban Hispanic immigrant.

An additional implication of the theoretical framework was that in intra-Hispanic comparisons the exogenous nature of the immigration decision for political refugees would lead to Cubans' being relatively worse off than other Hispanic immigrants in the initial years after the migration, and that over time this disadvantage would disappear. This implication is tested in Table 3, which analyzes the intra-Hispanic differences in wage rates and annual earnings for each of the immigrant waves.

The coefficients presented in Table 3 are obtained from regressions of the form:

$$(2) \quad LCWAGE \text{ or } LCANN = \beta X + \lambda_1 MEXICAN + \lambda_2 (PUERTO\ RICAN) + \lambda_3 CENTRAL + \lambda_4 OTHER + \mu$$

where X is the vector of socioeconomic variables introduced earlier; *MEXICAN* = 1 if the immigrant is a Mexican; *PUERTO RICAN* = 1 if the immigrant is Puerto Rican; *CENTRAL* = 1 if the immigrant is from Central or South America; and *OTHER* = 1 for immigrants who are "other Hispanics." The omitted dummy variable indicates whether the immigrant is of Cuban origin. Equation 2 is estimated *within* each immigrant wave: immigrants arriving in the 1970s, immigrants arriving in 1965 – 69, and so forth.

The results in Panel A indicate that Cubans are not better off (do not have higher wage rates) than other Hispanics who immigrated in the early 1970s. Indeed, in Panel B the results show that Cubans who immigrated in the 1970s have substantially lower annual earnings than other Hispanic immigrants who arrived in the United States at the same time. Moreover, in both Panel A and B of Table 3, as the focus is shifted to individuals who migrated prior to 1969, the

Table 3. Earnings Differentials Among Hispanics by Year of Immigration.[a] (*t*-ratios in parentheses)

	Independent Variable					
Sample: Immigrants Arriving In:	*Mexican*	*Puerto Rican*	*Central*[b]	*Other*	R^2	*N*
	Panel A. Dependent Variable = *LCWAGE*					
1970 – 1975	.1828	.0669	– .0264	.1840	.099	340
	(1.18)	(.38)	(– .17)	(.86)		
1965 – 1969	.0231	.0189	.0382	– .0152	.160	230
	(.20)	(.14)	(.34)	(– .11)		
1960 – 1964	– .0903	– .2675*	– .1455	.0719	.303	188
	(– .86)	(– 2.26)	(– 1.22)	(.49)		
1950 – 1959	– .2751*	– .3731*	– .1200	– .3198	.246	287
	(– 2.05)	(– 2.87)	(– .71)	(– 1.67)		
Before 1950	– .2909	– .0392	– .5191	– .1101	.245	127
	(– 1.07)	(– .15)	(– 1.33)	(– .36)		
	Panel B. Dependent Variable = *LCANN*					
1970 – 1975	.5060**	.3347	.2643	.4787	.229	340
	(2.70)	(1.56)	(1.39)	(1.84)		
1965 – 1969	– .1425	– .2225	– .2559	– .1403	.365	230
	(– .88)	(– 1.15)	(– 1.65)	(– .72)		
1960 – 1964	.0366	– .1939	– .0277	.1751	.352	188
	(.26)	(– 1.23)	(– .17)	(.89)		
1950 – 1959	– .3275*	– .4490**	– .1120	– .4264	.298	287
	(– 2.00)	(– 2.84)	(– .55)	(– 1.82)		
Before 1950	– .1293	– .0606	– .2922	– .0725	.337	127
	(– .52)	(– .25)	(– .81)	(– .26)		

[a] The vector of variables X introduced in the text is held constant in all the regressions.
[b] This includes immigrants from South or Central America.
*Significant at the .05 level in a two-tailed test.
**Significant at the .01 level in a two-tailed test.

results generally show an improvement in the relative position of Cubans among Hispanic immigrants. Thus the results in Table 3, although not very strong in terms of statistical significance, suggest the existence of a disadvantage in the U.S. labor market for the most recent Cuban immigrants, but also suggest that over time this disadvantage will disappear.

The Role of Human Capital Accumulation

The interpretation of the results in the previous section rests on the hypothesis that due to the different nature of the Cuban immigration and to the difficulty these immigrants encounter in return mobility, their incentives to "adapt" to the U.S. labor market are greater than those of other immigrants. In other words, Cubans (and other refugees) start investing in U.S. labor market skills relatively soon after their immigration takes place. It is this accumulation of human capital that leads to the faster economic progress of Cuban immigrants in the United States.

Obviously there are difficult problems associated with testing this hypothesis, since the process of human capital accumulation is seldom observed directly. The SIE, however, permits a straightforward analysis of this question by providing information on the number of years of schooling obtained by the immigrant *in* the United States. To the extent that schooling investments in the United States are positively correlated with the total volume of human capital obtained after immigration, we should be able to ascertain the extent of differences in rates of human capital accumulation among the various Hispanic groups.

The hypothesis that Cubans invested more in human capital is tested by estimating the demand function for U.S. education:

$$(3)\quad EDUCUS = Z\beta_0 + \beta_1 \cdot MEXICAN + \beta_2 \cdot (PUERTO\ RICAN) + \beta_3 \cdot CENTRAL + \beta_4 \cdot OTHER + \eta$$

where *EDUCUS* is the number of years of U.S. schooling obtained by the individual; Z is a vector of variables measuring the costs and returns of U.S. education, as well as the individual's socioeconomic characteristics; and the omitted dummy variable indicates whether the individual is of Cuban origin. The vector Z includes: the individual's age, marital status, health status, SMSA status, whether enrolled in an educational program in 1976, and the number of years of education obtained *prior* to immigration.[18]

Equation 3 is estimated *within* each of the immigrant waves in the sample to avoid the possible scale effect that more U.S. education is obtained the longer an individual is in the United States. The age variable is included since, as Table 1 reveals, Cuban immigrants are significantly older than other Hispanic immigrants, raising the costs and lowering the returns from obtaining further education. Moreover, since the regression is estimated separately for each immigrant wave, controlling for age ensures that the immigrants arrived in the United States in approximately the same stage of the life cycle. Finally, years of schooling attained prior to immigration, *EDUCA*, controls both for income and price effects. The larger *EDUCA*, the more possible it may be to finance further investments in education, but the higher the opportunity cost of investing in further education.

As can be seen in Table 4, the coefficient of *EDUCA* is strongly negative in all the regressions. Thus the price effect of obtaining further education due to the higher opportunity cost is very important. Note that the results unambiguously show that Cubans have invested more in U.S. schooling than all other Hispanic groups in almost every immigration wave. Even Cubans arriving during the 1970s had, for example, obtained 1.2 additional years of U.S. education than Mexican immigrants by 1976. The gap increases to 1.5–2 years for Cubans who arrived in the 1960s, and remains strong and significant even for the pre-Castro immigrants.

Similarly, Cubans have higher rates of investment in education in the United States than Puerto Rican immigrants. Cuban immigrants arriving during the 1960s

[18]In principle, Equation 3 uses the marital status, health status, and SMSA status as of the time of immigration. Unfortunately the SIE provides information of these variables only for 1976, the date of the survey.

Table 4. Differences Among Hispanic Immigrants in U.S. Educational Investments.[a] (*t*-ratios in parentheses)

	Independent Variable					
Sample: Immigrants Arriving in:	*Mexican*	*Puerto Rican*	*Central* [b]	*Other*	*Educa*	R^2
1970–1975	−1.1665**	−.4510	−.2579	−.4060	−.2013**	.164
	(−2.66)	(−.92)	(−.58)	(−.67)	(−6.90)	
1965–1969	−2.1145**	−1.1544	−.7462	−1.2305	−.2921**	.404
	(−3.84)	(−1.74)	(−1.36)	(−1.78)	(−6.21)	
1960–1964	−1.5625**	−2.3565**	.0655	−.4621	−.3898**	.627
	(−2.77)	(−3.82)	(.10)	(−.58)	(−7.52)	
1950–1959	−1.4814*	−1.7146*	.9324	−.8735	−.5776**	.718
	(−2.02)	(−2.43)	(1.03)	(−.84)	(−11.60)	
Before 1950	−3.3827	−1.6925	1.9875	−1.2625	−.7853**	.505
	(−1.83)	(−.91)	(.74)	(−.59)	(−8.26)	

[a] The vector of variables *Z* introduced in the text is held constant in all regressions.
[b] This includes immigrants from South or Central America.
*Significant at the .05 level in a two-tailed test.
**Significant at the .01 level in a two-tailed test.

have invested substantially more in U.S. schooling than Puerto Ricans who immigrated at the same time. The results in Table 4, therefore, provide direct and convincing evidence that Cuban immigrants have had higher rates of human capital accumulation in the United States than other Hispanic groups. To the extent that extensive investments in human capital lead to faster rates of economic mobility, the gap between the economic progress made by Cubans and other Hispanics can be attributed to the human capital investment differential.

In terms of the framework developed earlier, the results in Table 4 are consistent with the view that for a variety of reasons Cubans have greater incentives to adapt rapidly to the U.S. labor market. In fact, a more concrete interpretation of the results in Table 4 can be obtained if we assume that the rate of return to U.S. education is 5 percent. Table 4 then reveals that due to additional schooling investments a Cuban who immigrated in 1965–69 will have 10.6 percent greater 1976 wages than a Mexican who immigrated at the same time with the same initial level of schooling. The similar statistics for Puerto Ricans and Central-South Americans are 5.8 percent and 3.7 percent, respectively. Differences in the rate of human capital accumulation while in the United States, therefore, are an important source of earnings differentials among the various Hispanic immigrant groups.

Summary

This paper has provided an analysis of differences in the earnings of male Hispanic immigrants in the United States. The main lesson is that the various Hispanic groups have had very different experiences in the U.S. labor market, and hence separate analyses for each group are required.

The empirical study was conducted using the 1976 Survey of Income and Education. The findings indicate, first, that the earnings of Hispanic immigrants as a single group are a positive function of time since immigration. The rate at which wages respond to the assimilation process, however, varies significantly among the different Hispanic groups. In particular, the experience of Cuban male immigrants seems to be

very different from that of the other groups: the Cubans' rate of economic progress clearly exceeds that of the other Hispanic groups in the United States.

The findings also indicate that the intra-Hispanic differences in wage gains made as a result of the assimilation process are partly attributable to the fact that Cubans have accumulated significantly more human capital in the years *after* immigration. In particular, Cuban immigrants have invested more heavily in U.S. schooling than other Hispanic immigrants arriving in the United States at the same time with similar initial conditions.

These findings are consistent with the hypothesis that the *consequences* of the immigration experience are likely to differ between "economic" immigrants and political refugees. Because political refugees are likely to face higher costs of return immigration, they have greater incentives to adapt rapidly to the U.S. labor market. Since the United States has a large and growing refugee population, it is clear that further analysis of this problem may provide important insights about the operations of the labor market.