DOCUMENT RESUME

ED 246 160 UD 023 683

AUTHOR DeFreitas, Gregory

TITLE Ethnic Differentials in Unemployment among Hispanic

Americans.

SPONS AGENCY National Inst. of Child Health and Human Development

(NIH), Bethesda, Md.

PUB DATE Sep 82

GRANT 1-R01-HD-15435-01

NOTE 59p.; Also contained in UD 023 679. PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS Comparative Analysis; Cubans; Educational Attainment;

*Ethnic Discrimination; *Hispanic Americans; Immigrants; *Individual Characteristics; Latin

Americans; Males; Mexican Americans; Migrants; Puerto

Ricans; *Racial Differences; Secondary Education;

*Unemployment; *Whites

IDENTIFIERS Survey of Income and Education

ABSTRACT

Differences in the incidence and duration of unemployment among Hispanic men and between Hispanics and Anglos were analyzed statistically. The investigation found that Hispanics were far more likely to be unemployed one or more times in 1975 than were Anglos. Differential treatment played a significant role in the higher unemployment of Hispanics, but differences in worker characteristics were far more important. There were substantial differences in unemployment among Hispanic ethnic groups: Mexican, Puerto Rican, and Cuban men had a higher incidence and longer average duration of unemployment than Central and South Americans and "other Hispanies." For Mexicans, lower schooling levels were the single most important factor. For Puerto Ricans, the large inflow of recent, increasingly rural, and unskilled Puerto Rican migrants contributed to their higher unemployment rate. Low education levels played an influential but secondary role. Cuban men were especially vulnerable, with higher probabilities of unemployment and multiple jobless spells than the other Hispanics. (CMG)



10023683

-311/1 6 18th

Ethnic Differentials in Unemployment

Among Hispanic Americans

Gregory DeFreitas
Department of Economics
Barnard College
Columbia University

I am indebted to Jacob Mincer, Orley Ashenfelter, Robert Mare, Finis Welch, and Barry Chiswick for their comments and suggestions on earlier drafts. I am also grateful to Machiko Osawa for research assistance. This research was supported by the National Institute of Child Health and Human Development, Grant No. 1-RO1-HD-15435-01.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Patricia H. Ma Neill Watt. Comm. for Empl.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

201

U.S. DEPARTMENT OF EDUCATION

NATIONAL INSTITUTE OF EDUCATION EDUCATIONAL RESOURCES INFORMATION CENTER IERICI

- This document has been reproduced as received from the person or organization originating it.
- inginating it.
 If Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.



Ethnic Differentials in Unemployment Among Hispanic Americans

Throughout the recent past, the unemployment rate of the Hispanic labor force has persistently exceeded the national average. In 1980, when 6.1% of white men were out of work, the annual rate for Hispanic men was 9.7% (see Table 1). Among Hispanics, there are marked differences across ethnic groups, ranging in 1980 from a low of 8.9% of Cubans jobless to a high of 13.1% for Puerto Rican men. Unemployment among black men was, at 13.2%, well above either white or Hispanic levels, and the high black jobless rate has been the subject of some, though still too little, analysis by economists (see, e.g., Gilroy, 1974; Flanagan, 1978). Far less research has been done on the disproportionate share of unemployment experienced by Spanish-origin workers, despite their fast-growing importance in particular urban and regional labor markets and despite the increased availability of relevant national data sets since the mid-1970s.3

The purpose of this study is to examine differences in both the incidence and duration of unemployment among Hispanic men. Comparisons are also made between Hispanics and non-Hispanics. Among the most important questions to be addressed are the following:

1. Can the higher unemployment rates of Hispanic ethnic groups be largely attributed to more frequent spells of unemployment or to the longer duration of those spells?



Unemployment Rates of Men 16 Years and Over by Race and Hispanic Ethnic Group, 1976-1980

	1976	1977	1978	1979	1980
All Whites	6.4%	5.5%	4.5%	4.4%	6.12
All Hispanics	10.8	9.0	7.6	6.9	9.7
Mexican	9.9	8.5	7.0	6.5	9.6
Puerto Rican	15.7	13.7	12.4	11.4	13.1
Cuban	12.5	7.6	6.7	6.1	8.9

Source: U.S. Bureau of Labor Statistics, unpublished tabulations.



- 2. Do ethnic groups differ in the relative importance of human capital variables—such as education, fluency in English, and work experience—as determinants of the probability and duration of joblessness?
- 3. Are there substantial differences among the ethnic groups in the impacts of such structural factors as local labor market conditions, industry of employment, and occupation?
- 4. Are Hispanic immigrants particularly prone to frequent and/or lengthy spells of unemployment, at least during their first few years of adjustment to U.S. labor warkets? If so, to what extent can the sizable numbers of recent immigrants among certain ethnic groups account for the unemployment levels of those groups?

The data base, principal variables of interest and the economic rationale behind their selection, and the empirical methodology are discussed in the following section. In the subsequent section we first present summary statistics on various dimensions of unemployment, including spells and duration, as well as quit and layoff rates, for the sample stratified by ethnic group, nativity, age, and geographic region. Maximum likelihood logit analysis of the determinants of the probability of unemployment in 1975 is then conducted for individual Hispanic ethnic groups as well as for white non-Hispanics. To control for the possible confounding effects of divergent patterns of settlement across the country, separate regional analyses are also conducted. Next, differences in the probability of multiple spells of unemployment are examined, again using logit estimation techniques. Then, ordinary least squares estimates of the determinants of the duration of unemployment are pre-



sented for both the national sample and a regional subsample. In the next section, differences in the likelihood of unemployment between Hispanics and non-Hispanics are decomposed into portions attributable to differences in schooling, job characteristics, and labor market treatment. The separate strands of the analysis are drawn together in the last section.

DATA, VARIABLES, AND METHODOLOGY

The empirical analysis employs data from the 1976 Survey of Income and Education (SIE). This survey is an expanded version of the Current Population Survey conducted nationwide, mostly in May and June of 1976, which oversampled Hispanics and which contains a wealth of demographic, immigration, and labor market information relevant to our topic. From the complete file of 151,170 households, a subfile of individuals aged 14 and over was extracted which included all persons self-identified as being of Hispanic origin plus a random sample of white non-Hispanics. The study sample was restricted to men who reported their ethnic group or place of birth, who were not full-time students or self-employed, and who worked for pay at some time in 1975.

To investigate differences in the incidence of unemployment, the following unemployment probability function is estimated separately by ethnic group:

(1) P(UNEMP75=1) = f(EDFOR, EDUS, EX, EXSQ, MSP, CHILD5, CHILD517, HEALTH, IMM7475, IMM7073, IMM6569, IMM6064, IMMPRE60, NONWHITE, FLUENT, OTHING, PARTTIME, UNRATE, OCC, IND, HISPROP),



where UNEMP75 = 1 if unemployed one week or more in 1975, 0 otherwise.

All other variables are defined in Table 2. The effects of the independent variables given above on two other dependent variables the probability of more than one spell of unemployment during the year (SPELLGT1) and the total number of weeks of unemployment in 1975 (WKSUN75) will also be explored. Both UNEMP75 and WKSUN75 are constructed from responses to the survey question item: "You said (household member) worked about weeks in 1975. How many of the remaining weeks was (household member) looking for work or on layoff from job?" Interviewers were instructed to ask the question only of those individuals who worked fewer than 50 weeks that year.4

Predicting the signs of all the explanatory variables is particularly difficult in the probability of unemployment equations because the dependent variable includes both the probability of quitting and the probability of being laid off. However, with unemployment in 1975 at a postwar high and layoffs accounting for an unusually large share of all joblessness, the unemployment variable is doubtless weighted toward the layoff rather than the quit dimension. In light of this, previous theoretical and empirical work enables us to speculate on the probable effects of a number of the independent variables.

Most of the relatively few recent studies on Hispanic unemployment have stressed the importance of ethnic differences in age, schooling, immigration patterns, and occupation or industry of employment (e.g., Gray, 1975a, 1975b; Newman, 1978; Piore, 1978). Insofar as older workers represent a larger investment in firm-specific capital by the employer, such workers would be less vulnerable to layoffs than younger individuals.



Table 2
List of Variables

Variable	Definition
UNEMP75	l if out of work and looking for a job or on layoff l week or more in 1975; O otherwise.
SPELLGT1	1 if more than 1 stretch of time spent looking for work in 1975; 0 otherwise.
wksun75	Number of weeks looking for work or on layoff in 1975.
EDFOR	Years of schooling completed abroad.
EDUS	Years of schooling completed after moving to U.S. (total years of schooling minus EDFOR).
EX	Potential labor market experience (age minus total years of schooling minus six).
EXSQ	Potential labor market experience, squared.
MSP	1 if married, spouse present; 0 otherwise.
CHILD5	Number of children in family under 5 years old.
CHILD517	Number of children in family ages 5 to 17.
HEALTH	l if amount or kind of work limited by health; 0 other-wise.
IMM7475	1 if foreign-born and moved to U.S. 1974 or after; O otherwise.
IMM7073	1 if foreign-born and moved to U.S. 1970-73; O otherwise.
IMM6569	1 if foreign-born and moved to U.S. 1965-69; O otherwise.
IMM6064	1 if foreign-born and moved to U.S. 1960-64; O otherwise.
IMMPRE60	l if foreign-born and moved to U.S. before 1960; O otherwise.



Table 2 (cont.)

List of Variables

Variable	Definition
NONWHITE	1 if nonwhite; 0 otherwise.
FLUENT	1 if speaks and understands English very well; 0 other-wise.
OTHINC	Other family income, excluding labor earnings and unemployment benefits (respondent and spouse), and earnings-related transfers.
PARTTIME	1 if worked fewer than 35 hours/week when employed in 1975; O otherwise.
UNRATE	Annual unemployment rate for SMSA of residence or SMSA.
occ	l if employed as craftsman, operative, laborer or service worker on longest job in 1975; O otherwise.
IND	l if employed in durable manufacturing or construction industries on longest job in 1975; O otherwise.
HISPROP	Percentage of state population Hispanic.
UI	1 if received any unemployment compensation in 1975; 0 otherwise.



Likewise, the greater the volume of worker-financed specific capital, the lower the probability of quitting. 5 Education and proxies for on-the-job training, such as experience and tenure with the firm, are usually viewed as increasing specific capital. We would thus expect years of schooling completed to be negatively related to the probability of being unemployed one or more times. To distinguish between the effects of foreign and U.S. schooling, educational attainment was divided into premigration (EDFOR) and postmigration (EDUS) components. The effects of these same variables on the duration of joblessness are ambiguous. On the one hand, better-educated, more highly skilled individuals may have higher expected returns from job search, thus lengthening unemployment spells. However, search costs are also higher for those with more firm-specific capital, and these individuals may also be more efficient in their use of search rechniques. The latter considerations would seem more compelling in slack labor markets, suggesting a negative relationship between education, experience, and duration.6

The implications of migratory differences across groups are even less obvious. Recent immigrants may be at some disadvantage in the labor market relative to earlier immigrants and the native-born due to a smaller stock of U.S. labor market information, language problems, the imperfect international mobility of skills, and a variety of legal restrictions on the employment of aliens in certain fields. Chiswick (1978b, 1982) suggests that their quit rates may be high, at least in the initial adjustment period, as they engage in occupational, industrial, and geographic mobility in search of labor market information and job opportunities. Writing from a labor market segmentation perspective,



Piore (1979) argues that recent immigrants are among those most likely to be confined to the typically unstable, low-skill jobs common in secondary sector industries. Relatively high rates of job turnover and unemployment, generated by both supply and demand forces, may thus be expected for recent cohorts.

On the other hand, much of the sociological literature on immigrants has stressed their high motivation to locate jobs quickly in order to end dependence on friends and relatives, to begin accumulating savings for self-support and to remit to their families at origin, and to acquire U.S.-specific and firm-specific training. Kinship networks already established at destination may play an important role in advising on the optimal timing of the immigration, arranging initial housing accommodations, social contacts, and assistance in job search (see, e.g., Levy and Wadycki, 1973; Rogg and Cooney, 1980; Tienda, 1980). Prior migrants thus reduce the economic and psychic costs of immigration as well as accelerate the newcomer's successful entry into the job market. The relatively rapid earnings progress of most foreign-born groups relative to their native-born counterparts (Chiswick, 1978a, 1979b) likewise suggests that the initial employment disadvantages are typically overcome after an adjustment period of variable length. Among Hispanic immigrants, the unemployment experience of two ethnic groups are especially difficult to predict. Research on Cubans by Chiswick (1978a), Borjas (1982), and Reimers (1980) has pointed to the different earnings patterns of political refugees and economic migrants. The suddenness of most Cuban emigration prevented much premigration job search, and the steep downward occupational mobility many appear to undergo upon arrival



may cause job dissatisfaction and a preference for general human capital investments to improve future occupational prospects over firm-specific investments, at least in the initial period after arrival. The result may be high quit and/or layoff rates. Puerto Rican-born men are not formally classifiable as immigrants because they are U.S. citizens and are not impeded by legal restrictions on entry or exit from the United States. Whether they nonetheless have unemployment experiences similar to other Hispanics born outside the United States is a matter for empirical analysis.

To control for industrial characteristics, a dichotomous variable (IND) is set equal to 1 if the respondent's longest recent job was in the durable manufacturing or construction industries. In the course of 1975, durable goods manufacturers, led by auto and related industries, experienced the largest absolute employment reduction of any industrial group, accounting for two-thirds of the overall drop in manufacturing employment. The highest unemployment rate of any single industry (18.1% on an annual basis) was in contract construction, where the work force was cut sharply as housing starts plummeted with the tightening of the money market (St. Marie and Bednarzik, 1976). Although joblessness in white collar occupations reached postwar highs, semiskilled and unskilled workers were, as in previous recessions, the most vulnerable to cyclical fluctuations (St. Marie and Bednarzik, 1976; Cohen and Gruber, 1970). The dummy variable OCC equals 1 if employed in craft, operative, service, laborer, or farm occupations, 0 otherwise. A dummy variable was also included for part-time employment (PARTTIME), which is likely to be especially unstable, characterized as it is by few seniority or union protec-



tions against layoffs and by employer' perceptions of part-time workers as especially quit-prone.

Three approaches were adopted to take into account the markedly different regional distributions of various ethnic groups. First, the annual unemployment rate of the SMSA (Standard Metropolitan Statistical Area) of residence or the nearest SMSA (UNRATE) was included in all regressions. The reduced number of vacancies and increased costs of search in slack labor markets are likely to be associated with increased layoffs, falling quit rates, and, among the unemployed, longer-duration joblessness. Second, in an effort to test the common view that the "crowding" of Hispanic workers in particular areas restricts local employment opportunities, the variable HISPROP was defined as the proportion of Hispanics in each state's population. Finally, where sample size permitted, separate regressions were run for particular regions of the country with high concentrations of Hispanic resident:

Although recent research indicates that black workers tend to have lower quit rates than whites with similar personal and job characteristics (Blau and Kahn, 1981b), insofar as employers perceive them as high turnover workers the employers will be less willing to finance firmspecific capital. Together with discriminatory factors, this would tend to increase the vulnerability of nonwhites to layoffs.

Finally, controls were included for two types of income: nonlabor income (OTHINC) and unemployment insurance (UI). The probable effects of nonlabor income on the incidence of unemployment are not apparent, a priori. But to the extent that such income can be used to finance extended job search, it may be positively related to the duration of



unemployment. Likewise, a number of studies have found a positive correlation between the receipt of unemployment benefits and duration.⁹ A dichotomous variable (UI), set equal to 1 if the individual received unemployment insurance in 1975, has thus been included in the duration equations.

EMPIRICAL RESULTS

The summary statistics presented in Table 3 reveal striking differences between Hispanics and non-Hispanic whites, as well as among Hispanic ethnic groups, in a number of characteristics. With an average of less than 10 years of schooling, Mexican and Puerto Rican men are 3 years below the non-Hispanic level and 1 to 2 years below the other Hispanic groups. Cubans are, on average, older (mean age: 41 years 10), with more work experience than any other group, but much of that work experience was in the Cuban labor market—about 95% of the Cubans were foreign—born, and nearly 42% had been in the United States 10 years or less by 1975. Central and South Americans are even more recent immigrants: 39.2% arrived in the 1970s and another 24.7% in the period 1965—69. Less than one-fourth of all Puerto Rican men were born on the U.S. mainland. In contrast, 74.5% of those of Mexican origin and 87% of the "other Hispanics" were native—born (i.e., U.S.—born).11

In light of the high proportions of Puerto Ricans, Cubans, and Central and South Americans born abroad, it is not surprising to find that the majority of their schooling took place in their countries of origin and that many lack fluency in English. In fact, only 42% of Cubans and somewhat more than one-half of Puerto Ricans and Central and South



Table 3

Means of Explanatory Variables among Men in Various Ethnic Groups

Variable	White Non- Hispanic	Mexican	Puerto Rican	Cuban	Central & South American	Other Hispanic
EDFOR	1.137	1.237	5.019	8.764	9.572	1.146
	(3.458)	(2.847)	(4.677)	(4.909)	(6.010)	(3.474)
EDUS	11.350	8.360	4.729	2.717	2.497	10.049
	(4.476)	(5.130)	(5.555)	(4.321)	(4.459)	(4.497)
EX	20.960	18.770	20.222	23.696	18.868	21.401
	(15.753)	(14.883)	(13.705)	(14.370)	(11.423)	(15.943)
EXSQ	687.065	575.990	607.220	774.699	483.414	703.576
	(824.641)	(793.396)	(701.534)	(741.162)	(535.978)	(848.661)
MSP	.745	•700	•771	•739	•687	•728
	(.436)	(.458)	(.421)	(.441)	(.465)	(.445)
CHILD5	.221	•457	.356	.180	•380	.254
	(.519)	(.740)	(.619)	(.446)	(.618)	(.548)
CHILD517	.889	1.385	1.111	.919	•795	1.103
	(1.248)	(1.633)	(1.384)	(1.178)	(1.168)	(1.434)
HEALTH	•079	.079	•070	.062	•042	.075
	(.271)	(.269)	(.255)	(.242)	(.202)	(.263)
IMM7475	•007	.029	.041	•037	.102	•004
	(.083)	(.169)	(.199)	(.190)	(.304)	(.060)
IMM7073	.012	.054	.092	.124	•289	•025
	(.109)	(•227)	(.290)	(.331)	(.455)	(.156)
IMM6569	.021	•048	.086	•255	.247	•037
	(.143)	(.213)	(.280)	(•437)	(.433)	(.190)
LMM6064	.015	.028	.102	.342	•139	•025
	(.129)	(.165)	(.303)	(.476)	(.347)	(.156)
MMPRE60	.103	•097	.448	.186	•151	•043
	(.304)	(.295)	(.498)	(.391)	(.359)	(.202)



Table 3 (cont.)

Means of Explanatory Variables among Men in Various Ethnic Groups

Variable	White Non- Hispanic	Mexican	Puerto Rican	Cuban	Central & South American	Other Rispanic
NONWHITE		•022	•086	.037	•133	050
	776	(.146)	(.280)	(.190)	(.340)	.050 (.218)
FLUENT	.911	•671	•540	.422	•506	.792
	(.285)	(.470)	(.499)	(.496)	(.502)	(.406)
OTHINC	45.887	30.607	22.100	34.399	24.341	34.473
(s¹00)	(83.385)	(55.441)	(44.730)	(53.160)	(59.848)	(67.849)
PARTTIME	•094	.088	.060	.042	.053	.072
	(.292)	(.284)	(.237)	(.202)	(.225)	(.259)
UNRATE	8.322	8.144	9.486	10.947	9.635	8.780
	(2.254)	(2.561)	(1.658)	(2.023)	(1.919)	(2.040)
occ	.576	.808	.806	.702	•729	.741
	(.494)	(.394)	(.396)	(.459)	(.446)	(.439)
IND	.276	.268	.329	.258	.306	.258
	(.442)	(.432)	(.463)	(.439)	(.462)	(.436)
HISPROP	3.080	12.741	4.299	5 .533	5.628	15.284
	(4.923)	(9.400)	(3.425)	(2.859)	(5.190)	(14.089)
UI	•179	.185	.194	.162	.127	.172
	(.147)	(.388)	(.396)	(.369)	(.333)	(.378)
N	8,480	1,937	328	163	170	566

Note: Data base is the 1976 Survey of Income and Education. Standard deviations are in parentheses.



Americans could speak and understand English very well. Cuban and Central and South American immigrants are, however, far more likely than Puerto Ricans to have been drawn from the urban middle classes and skilled occupations of their homelands. 12

These three groups tend to reside in labor markets with average unemployment rates well above those for the other groups. Whereas the majority of Mexicans and "other Hispanics" live in the Southwest and over two-fifths are outside metropolitan areas, over 80% of each of the other Hispanic groups reside in SMSAs, principally in the Northeast and, in the case of Cubans, in Florida. Puerto Ricans and Central and South Americans tend to be more concentrated in cyclical industries, and Puerto Ricans, as well as Mexicans, are far more likely than either non-Hispanics or the other Hispanic ethnic groups to be in low-wage occupations.

Table 4 provides information on various dimensions of unemployment for the sample, stratified by ethnicity, nativity, age, and region.

Nationally, as well as within specific regions, Hispanics were substantially more likely to have been unemployed at some point in 1975 than non-Hispanic whites. Of the full Hispanic sample, 21.5% experienced joblessness compared with 14.8% of non-Hispanics. Within each of the two subpopulations, the foreign-born rate was somewhat above the native-born level, but the difference was statistically significant only for non-Hispanic whites. Among Hispanics, rates vary from 21 to 23% for Mexicans, Puerto Ricans, and Cubans to less than 18% for Central and South Americans and other Hispanics. Controlling for age, the ranking remains the same among prime-aged males, 35 to 54. When particular



Table 4

Selected Characteristics of Unemployment by Ethnicity,
Nativity, and Region of Residence^a

	Unemployed	Weeks Unemployed ^b	Multiple Spells	Weeks Out of Labor Force	Quirs	Layoffs	Entrants
United States				•.		·	
White Non-Hispanic	.149	17.71	.047	4.110	•007	.029	.015
Native	.145	17.58	.047	4.143	.007	-028	.015
Foreign	.167	18.78	.050	3.932	.005	•035	.012
Hispanic	.215	18.00	.073	4.313	.007	.047	.022
Native	.205	17.55	•079	4.869	.007	•042	.024
Foreign	.214	18.79	.061	3.322	.009	•056	.018
Mexican	.214	18.09	.079	4.859	.008	.045	.021
Puerto Rican	.228	18.82	.056	3.092	.014	•053	.025
Cuban	.228	19.82	.072	1.843	.012	.096	.024
Latin Americanc	.171	16.17	.035	3.083	.000	.041	.006
Other Hispanic	.179	16.69	.072	4.318	.002	•035	.025
35-54 Years 01d							
White Non-Hispanic	.111	17.71	.034	1.111	•004	•025	.005
Mexican	.176	17.51	.062	2.563	.004	.037	•006
Puerto Rican	.207	18.62	.043	1.650	.007	.036	.014
Cuban	.195	24.35	.058	.058	.000	.103	.012
Latin Americanc	.127	16.30	.000	1.152	.000	•038	•000
Other Hispanic	.093	15.86	.036	1.671	.000	.018	.013
New York-New Jersey							
White Non-Hispanic	.143	22.72	.041	2.742	.002	.058	.019
Puerto Rican	.197	18.15	.038	2.748	.000	.030	.023
Cuban	.217	21.60	.044	2.087	٠٥٥٥	.065	.044
Latin American ^c	.230	17.71	.033	3.344	•000	.082	.000
Other Hispanic	.172	13.00	.035	3.035	.000	.035	.035
Southwest							
√hire Non-Hispanic	.127	17.11	•050	3.849	.010	.010	.014
· fexican	.200	18.11	•074	5.046	.007	.050	.024
)ther Hispanic	.155	17.10	.078	4.267	.004	.042	.028



	Unemployed	Weeks Unemployedb	Multiple Spells	Weeks Out of Labor Force	Quits	Layoffs	Entrant
Florida				-			
White Non-Hispanic Cuban	.161 .279	17.67 21.76	.118 .131	9.835 .775	.011	.022 .164	.032 .016

^aMean values of variables. All variables refer to 1975, except for quits, layoffs, and entrants which are for 1976.



bSample restricted to men unemployed 1 week or more in 1975.

^CRefers to Central and South America.

regions are examined separately, "other Hispanics" continue to have relatively low rates, but nearly 23% of Central and South Americans in New York or New Jersey SMSAs were unemployed, the highest level of any Hispanic group. Central and South Americans in this region are, on average, younger (mean age of 32.6 years), more likely to be recent immigrants, and more concentrated in unskilled and semiskilled occupations than other ethnic groups or than Central and South American men elsewhere in the country. The largest disparity in unemployment is in Florida, where Cubans were over 1.5 times as likely to be jobless than were non-Hispanic whites.

Turning to the key components of unemployment, the duration of time out of work averaged about 18 weeks for Hispanics and non-Hispanics alike. The importance of long-term joblessness is revealed by the finding that, among the unemployed, about 30% were without work for six months or more, regardless of ethnic groups. The higher Hispanic unemployment rate thus reflects more frequent spells: 13.5% of Hispanics had one spell and 7.3% had two or more, while the corresponding frequencies for non-Hispanics were 10.3% and 4.7%.13 Whether one looks at figures adjusted or unadjusted for age differences, Cubans, Puerto Ricans, and Mexicans had the longest mean duration, while South Americans and other Hispanics are below even the white non-Hispanic level. 14 In contrast to the pattern for Mexicans and Cubans, the unemployment of Puerto Ricans appears to be concentrated in single rather than multiple spells. This may in part reflect labor market conditions in New York City and the higher unemployment benefits available there. This is horne out by the finding that, in New York and New Jersey SMSAs, all groups



experienced above-average durations of joblessness but no more than 4% had multiple spells. The difference in spell length between Mexican and other Hispanic men observed in the national subsamples does not persist when we focus solely on the Southwest. In contrast, the duration differential between non-Hispanics and Cubans doubles when we shift from the national to the Florida subsample. The unemployment of Cubans is characterized by both longer and more frequent spells.

Despite a much higher incidence of unemployment, Hispanics appear no more likely than non-Hispanics to drop out of the labor force. Although the proportion of "discouraged workers" doubtless increased in all groups as the recession deepened, Puerto Ricans and Central and South American men averaged one week less spent out of the labor force than non-Hispanics, and Cubans had briefer spells of nonparticipation than any other group, both in the national and in the regional subsamples.

To explore further the determinants of unemployment associated with inter-job and inter-labor-force mobility, it would be most desirable to have comparable data on the relative frequencies of quits, layoffs, entrants, and reentrants for each ethnic group in 1975. Unfortunately, the only information in the SIE on specific reason for unemployment is for the survey week of 1976 and is restricted to those currently unemployed. However, since unemployment remained at historically high levels well into 1976 (unemployment in New York and in Florida still averaged above 10% that year), comparisons across ethnic groups by reason for unemployment in 1976 may give at least some indication of the previous year's pattern.

As one would expect in depressed labor markets, quit rates were low for all groups, with insignificant differences between native- and



foreign-born men and among ethnic groups. The last two columns, however, reveal a tendency for most Hispanic groups to have higher probabilities of unemployment due to layoff and to labor market entry or reentry than non-Hispanic whites. By far the highest layoff rate observed was that of Cubans in Florida, who were almost 8 times as likely to be unemployed as a result of layoff than white non-Hispanics in that state. 15 This appears to be at least partly attributable to the high proportion of recent immigrants among the Cuban sample. Although the difference in layoff rates between native- and foreign-born Hispanics is relatively small and only significant at the .10 level, separate tabulations by immigration cohort (unadjusted for human capital or labor market variables) revealed that Mexicans, Puerto Ricans, and Cubans moving to the United States since 1965 average higher rates than earlier waves from their homeland or than non-Hispanics. In contrast, native-born Hispanics have higher unemployment due to labor market entry or reentry than the foreign-born; in fact, native-born Puerto Ricans have 3 times the rate of those born on the island.

Table 5 presents maximum likelihood logit estimates of selected coefficients in the unemployment probability equations for a pooled sample of white non-Hispanic and all Hispanic men, as well as estimates from regressions run separately on non-Hispanics and on Hispanics. In the pooled sample, both without controls for fluency in English and job and labor market factors (col. 1) and with such controls (col. 2), immigrant cohorts appear to have a probability of unemployment insignificantly different from that of native-born men. Once we disaggregate into separate non-Hispanic and Hispanic subsets, however, two patterns are revealed.



Table 5

Logit Estimates of Probability of Unemployment Equations, Non-Hispanic, Hispanic, and Pooled Hispanic/Non-Hispanic Men

Variable		on-Hispanic 1 Hispanic	White Non- Hispanic	Hispanic
	(1)	(2)	(3)	(4)
IMM7475	.005 (.219)	•130 (•229)	.215 (.401)	207 (.284)
IMM7073	225 (.180)	198 (.189)	.169 (.302)	606 ** (.246)
IMM6569	204 (.166)	180 (.172)	.417* (.229)	859*** (.247)
IMM6064	226 (.184)	189 (.188)	090 (.287)	550** (.255)
IMMPRE60	.162 (.107)	139 (.111)	.442*** (.131)	254 (.182)
Mexican	017 (.071)	•188** (•083)		235 (.160)
Puerto Rican	•116 (•144)	•098 (•148)	-	_
Cuban	.470** (.207)	.409* (.211)		.347 (.246)
Central and South American	078 (.225)	136 (.229)	-	250 (.260)
Other Hispanic	.044 (.117)	.178 (.129)	-	235 (.160)
-2 % log likelihood	10020.71	9671.60	6857.58	3125.92
N	11,644	11,644	8,480	3,164

Source: 1976 Survey of Income and Education.

Note: Dependent variable is UNEMP75. Standard errors are in parentheses. The regressions in cols. (1), (3), and (4) include schooling, experience, marital status, number of children, health status and race variables. Puerto Ricans are the excluded group in col. (4). The regression in col. (2) also includes variables for part-time employment, non-labor income, Hispanic proportion of state population, occupation, industry, local employment rate, and fluency in English.



^{*}Statistically significant at the 10% level.

^{**}Statistically significant at the 5% level.

^{***}Statistically significant at the 17 level.

In regressions without controls for English fluency or labor market characteristics, white non-Hispanics (col. 3) tend to have positive differentials relative to the native-born (though only the 1965-69 and pre-1960 cohort coefficients are significant), whereas Hispanic immigrants arriving between 1960 and 1973 have significantly lower probabilities of joblessness than native-born Hispanics with otherwise similar personal characteristics.

Among all men, Anglo and Hispanic, Cubans appear to have had a significantly greater likelihood of being unemployed in 1965 than white non-Hispanics (the excluded reference group), regardless of the specification used. Mexican men are also at a significant, though smaller, disadvantage once job and labor market factors are held constant (col. 2).

Table 6 presents maximum likelihood logit estimates of the unemployment probability equations for white non-Hispanics, all Hispanics, and individual Hispanic ethnic groups. 16 As expected, more highly educated individuals are less vulnerable to unemployment among all groups, although the coefficients are not statistically significant for Puerto Ricans and Cubans (whose extremely small sample size helps account for their relatively few significant coefficients). To the extent that schooling in the United States provides language training and country-specific labor market information, one might predict that EDUS would have a larger impact (in absolute value) than EDFOR, and this is the case for the pooled Hispanic, Mexican, and other Hispanic subsamples. Among non-Hispanic whites, Puerto Ricans, and Cubans, however, schooling prior to arrival appears to have a relatively stronger influence. 17



Table 6

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Ethnic Group

Variable	White Non- Hispanics	All Hispanics	Mexicans	Puerto Ricans	Cubans	Other Hispanics
ED FOR	120***	078***	125**	092	042	.093
	(.020)	(.022)	(.037)	(.060)	(.074)	(.071)
EDUS	098***	120***	156***	069	053	106*
•	(.015)	(.020)	(.025)	(.066)	(.101)	(.054)
EX .	041***	060***	052***	144***	035	069**
	(.008)	(.012)	(.015)	(.045)	(.067)	(.029)
EXSQ	.0002	.0004**	•0000	.002***	0007	
	(.0002)	(.0002)	(.0003)	(.0008)	.0004 (.001)	.0007
1SP	33 5***	166	061	.079	074	425
	(.091)	(.127)	(.165)	(.417)	(.562)	(.330)
HILD5	.003	019	048	054	 760	.146
	(.066)	(.074)	(.087)	(.257)	(.684)	(.239)
CHILD517	080***	009	049	•105	.027	.081
	(.028)	(.032)	(.039)	(.111)	(.181)	(.086)
IEALTH	.341***	.251	•126	.522	1.042	.330
	(.112)	(.172)	(.220)	(.516)	(.813)	(.430)
MM7475	•364	201	776*	2.024**	364	245
	(.416)	(.295)	(.401)	(.877)	(1.421)	(1.591)
MM7073	•332	639***	793**	.228	-1.765	-2.530**
	(.317)	(.255)	(.359)	(.700)	(1.212)	(1.133)
MM6569	.499**	883***	-1.034***	1.208*	-1.674	-2.395**
	(.241)	(.253)	(.373)	(.676)	(1.122)	(1.080)
MM6064	092	509**	220	•669	-1.005	-2.117
	(•295)	(.259)	(.386)	(.671)	(1.082)	(1.100)
MMPRE60	.414***	252	141	•569	930	588
	(.140)	(.187)	(.254)	(.469)	(1.075)	(.775)

Table 6 (cont.)

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Ethnic Group

Variable	White Non- Hispanics	All Hispanics	Mexicans	Puerto Ricans	Cubans	Other Hispanics
NONWHITE		.284	.482 (.356)	.441 (.504)	094 (1.227)	091 (.553)
FY.UENT	.132 (.118)	179 (.112)	127 (.144)	750*** (.350)	861 (.565)	061 (.299)
OTHINC	002*** (.0004)	001 (.001)	0002 (.001)	0006 (.004)	003 (.005)	··.061 (.299)
PARTTIME	.142	.389** (.165)	.433** (.200)	.535 (.556)	1.489 (1.071)	.412 (.473)
UNRATE	.085*** (.014)	.057*** (.020)	.072*** (.023)	095 (.037)	.002 (.122)	023 (.070)
occ	.681*** (.084)	.528*** (.145)	.519*** (.192)	.094 (.461)	1.448** (.650)	.448 (.355)
IND	.683*** (.068)	.605*** (.098)	.580*** (.128)	.395 (.304)	.408 (.470)	.941*** (.248)
HISPROP	011 (.007)	019*** (.005)	019*** (.007)	.012 (.047)	.019 (.079)	012 (.011)
Mexican		.002 (.169)				
Cuban		.372 (.251)				
Central & South American		186 (.264)				
Other Hispanic		.015 (.200)	_			



Table 6 (cont.)

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Ethnic Group

Variable	White Non- Hispanics	All Hispanics	Mexicans	Puerto Ricans	Cubans	Other Hispanics
Constant	-1.042*** (.290)	.141	.395 (.457)	1.247 (1.405)	071 (2.511)	.450 (.973)
-2 x log likelihood	6597.03	3039.18	1872.27	324.31	151.72	479.30
N	8,480	3,164	1,937	328	163	566

Note: Dependent variable is UNEMP75. Standard errors are in parentheses.



^{*}Statistically significant at the 10% level.

^{**}Statistically significant at the 5% level.

^{***}Statistically significant at the 1% level.

The anticipated inverse relationship between years of work experience and the probability of unemployment is confirmed for all groups except Cubans. Likewise, marriage and additional dependents appear generally to contribute to employment stability, though the coefficients are significant only for non-Hispanics. Among otherwise similar Hispanic men, health limitations and race do not appear to exert a significant impact on unemployment probabilities. Puerto Ricans able to speak and understand English very well have a significant advantage over other Puerto Rican men, but the effect of fluency in English seems to be weak for the other Hispanic groups.

Despite the adjustment difficulties confronting recent immigrants in a new labor market, our results for individual cohorts indicate that, whether due to high motivation, assistance by kin in the United States, or other factors, most have unemployment probabilities either insignificantly different from or significantly lower than their native-born counterparts. Thus, among all Hispanics, men who have been in this country only since 1974 (IMM7475) are about 5% less likely to be out of work than otherwise similar indigenous Hispanics. The differential is larger (12-15%) for those who arrived between 1965 and 1973 and is highly significant. After about 25 years in the United States, however, foreign-born Hispanics are about as susceptible to unemployment as the native-born.

Among white non-Hispanics, the results are less consistent and more difficult to interpret. Immigrants arriving since 1970 have a probability of unemployment insignificantly different from the native-born. 18 But the coefficients change sign and are significantly positive for two earlier cohorts (1965-69 and pre-60), for reasons which are unclear. One



must bear in mind that non-Hispanic immigrants are a heterogeneous group of widely varying ethnic and national origins about whom it is hard to generalize.

The pattern observed for the pooled Hispanic sample is no doubt much influenced by the tendency among Mexican men, the largest single component of the subsample, for immigrants to have unemployment probabilities 13.5 to 18% lower than U.S.-born Mexican Hispanics during the first 10 years in the United States. The "other Hispanic" group, also concentrated in the southwestern states, exhibits a similar pattern, and the differentials are even larger than among Mexicans.

Similarly, the coefficients of the Cuban subsample are consistently negative, and nearly attain significance at the 10% level for the 1965-69 and 1970-73 cohorts. However, the regression results for Cuban immigrants must be interpreted with extreme caution because the native-born reference group consists of only 9 individuals, 4 of whom reported being unemployed at some time in 1975.

Puerto Ricans are the only ethnic group in which the most recent cohort of newcomers to the mainland United States has a significantly greater likelihood of unemployment than the native-born. Although the coefficients rapidly fall in magnitude and significance for successive cohorts, they remain consistently positive. Part of the explanation for this pattern may be the unique status among Hispanic immigrants of persons born in Puerto Rico. As mentioned above, men born in Puerto Rico are, as U.S. citizens, able to move more freely back and forth between the two countries than are most immigrant groups. High rates of temporary, as well as permanent, return migration are facilitated by fast,



low-cost air transportation and the transferability of social security and unemployment insurance. Indeed, Gray (1975b) found that, in the period 1959 to 1972, unemployment insurance claims filed in Puerto Rico on the basis of mainland work experience rose dramatically. Insofar as those born on the island are more prone to periodic return visits, they are more likely than the native-born to have an impermanent attachment to the mainland labor market, discontinuous work histories, and a higher probability of unemployment. The increasingly rural, unskilled backgrounds of recent migrants, only weakly controlled for in our regressions, also put them at a disadvantage in urban northeastern job markets. The limited data available on premigration residence indicates that, by the late 1950s, three-fourths of all migrants to the mainland originated in areas outside San Juan and other major cities, urban areas which had been the source of most earlier migrants. Of those arriving on the mainland between 1957 and 1961, the largest single group of previously employed migrants came from the agricultural sector, the source of one-third of all those with some work experience. Farm laborers are thus disproportionately represented among recent cohorts (Gray, 1975b).¹⁹

It might be objected that rural, unskilled backgrounds are also characteristic of Mexican immigrants, yet they exhibit exactly the opposite pattern of significantly lower probabilities of unemployment than native-born members of their ethnic group. Although the limited evidence on apprehended illegal entrants from Mexico does suggest that the majority are from rural areas and are concentrated in seasonal farm labor in the United States (Fogel and Corwin, 1978), this no longer appears to



hold true for those able to acquire proper documents. For example, a survey of legal entrants arriving in Texas in 1973-74 found that nearly two-thirds were from urban areas of 10,000 or more and over one-third were from cities with 100,000 or more inhabitants (Tienda, 1980). Their ability to locate employment quickly was facilitated by the fact that over 60% had lived in the United States previously (many apparently in an undocumented status) and nine out of ten had relatives waiting at their U.S. destination. Following a trend begun after the Second World War, the majority of Mexicans now live and work in urban areas and increasing numbers reside in regions outside the Southwest, though they continue to be disproportionately employed in agriculture. Their more diversified geographic, occupational, and industrial patterns, in combination with more urbanized backgrounds, may count as important advantages over Puerto Rican migrants still clustered in marginal and declining sectors of the New York City economy. However, since persons illegally in the country are deabtless underreported in any government survey, our estimates of Mexican immigrant unemployment may be biased downward if illegal entrants experience above-average rates of joblessness.

Higher unemployment in the local labor market, part-time employment, and employment in unskilled and semiskilled occupations have the expected positive impact for Hispanics and non-Hispanics alike. The latter two variables are more consistently positive and have especially large, significant coefficients for Cubans, raising unemployment probabilities by 35 and 25%, respectively. Likewise, workers in the durable manufacturing and construction industries (IND) are, as expected, more prone to joblessness in the course of the year than men in other industries: the



unemployment probability is increased by about 9% for non-Hispanics and by 11% for the full Hispanic subset. Of individual ethnic groups, probabilities increase by over 11% for both Mexicans and "other Hispanics" and by roughly 6% for Puerto Ricans, the group most concentrated in industries with high unemployment. 20

Although some economists have cited the crowding of Hispanic workers in particular labor markets as contributing to higher unemployment rates, residence in states with a high proportion of Hispanics was found to have an insignificant effect on the probability of non-Hispanics being unemployed, and was associated with a significantly lower probability of unemployment among Hispanics. This may reflect certain regional labor market differences, as well as the advantages of job search in areas with already settled populations of one's own ethnic group.

In the national and separate regional regressions (Table 7), dummy variables were included for each ethnic group with Puerto Ricans as the benchmark group. Among all Hispanics nationally, Cubans alone appeared to have a somewhat higher (by about 6%) probability of being unemployed in 1975, though the coefficient is on the borderline of significance at the 10% level. In the New York-New Jersey subsample, however, the coefficient is well below standard significance levels, suggesting that the national result may be due to the experiences of Cubans elsewhere, particularly in Florida, where the most recent immigrants are concentrated. This group is quite different from most other Hispanic immigrants in that, as refugees, they entered the U.S. labor market without much opportunity for premigration preparation or job search and, on average, at a much older age than other immigrants. The relatively



Table 7

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Region

	New York and	l New Jersey	Sout	hwest
	White Non-	A11	White Non-	
Variable	Hispanic	Hispanic	Hispanic	Mexican
EDFOR	-,195 * **	038	110	084*
	(.066)	(.063)	(.075)	(.047)
EDUS	153**	157 *	023	154***
	(.062)	(.093)	(.051)	(.032)
EX	017	165***	042	~.060**
	(.033)	(.054)	(.030)	(.019)
EXSQ	0003	.003***	•0003	.0002
	(.0006)	(.001)	(.0006)	(.0003)
MSP	343	570	806***	120
	(.391)	(.468)	(.308)	(.207)
CHILD5	216	.128	112	088
	(.303)	(.316)	(•29 2)	(.113)
CHILD517	040	•033	.066	024
	(.135)	(.163)	(.094)	(.049)
HEALTH	.479	1.414**	.578	278
	(.458)	(.683)	(.3 86)	(.309)
IMM74	1.012	.717	.447	493
	(1.385)	(1.208)	(1.352)	(.529)
IMM7073	.840	651	1.233	-1.259***
	(.865)	(1.106)	(1.358)	(.482)
IMM6569	.028	-1.563	.735	-1.324**
	(.812)	(1.108)	(1.397)	(.453)
IMM6064	.370	723	.171	163
	(.785)	(1.044)	(.932)	(.447)
IMMPRE60	1.052**	942	.273	294
	(.498)	(.934)	(•543)	(.322)



Table 7 (cont.)

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Region

Variable	New York and New Jersey		Southwest	
	White Non-	A11	White Non-	
	Hispanic	Hispanic	Hispanic	Mexican
NONWHITE		•093		
		(.643)		*****
FLUENT	.181	635	240	135
	(.371)	(.477)	(.508)	(.187)
OTHINC	.002	005	001	001
	(.002)	(.005)	(.002)	(.002)
PARTTIME	.334	120	.042	.627 * *
	(.463)	(.875)	(.355)	(.238)
UNRATE	.113	039	.021	.093***
	(.104)	(.183)	(.045)	(.028)
occ	•587*	.348	.777***	.392*
	(.349)	(.545)	(.271)	(.228)
IND	.766***	.697*	.483**	.679***
	(.296)	(.392)	(.243)	(.160)
HISPROP	.102	.073	013	021**
	(.138)	(.228)	(.016)	(.010)
Cuban		•334		
		(.648)		
Central &				
South		.092		
American		(.523)		~~
Other	~=	.333		
Hispanic	-	(.588)		



Table 7 (cont.)

Logit Estimates of Probability of Unemployment Equations,
White Non-Hispanic and Hispanic Men, by Region

Variable	New York and New Jersey		Southwest	
	White Non- Hispanic	All Hispanic	White Non- Hispanic	Mexican
Constant	-1.970 (1.999)	1.685 (3.493)	859 (1.113)	.404 (.600)
-2 x log likelihood	375.13	225.41	573.64	1217.44
N	525	266	806	1,321

Note: Dependent variable is UNEMP75. Standard errors are in parentheses.



^{*}Statistically significant at the 10% level.

^{**}Statistically significant at the 5% level.

^{***}Statistically significant at the 1% level.

large number with professional and managerial backgrounds appear to experience considerable difficulty finding jobs in their prior occupations, and suffer sharp downward mobility for some time. These factors may contribute to a greater vulnerability to unemployment during the first few years in the United States than is observed for most other groups. It could also be argued that the exclusion of self-employed individuals and labor force participants unable to find work all year biases our results, since Cubans are about twice as likely to be salf-employed as all Hispanics. Regressions run on an expanded sample including all labor force participants in 1975 revealed that the self-employed were less likely to be unemployed, but the coefficient did not approach significance. The coefficient of the Cuban variable (.4296), however, was positive and statistically significant at the 10% level, suggesting that Cubans were indeed especially affected by the 1975 recession, relative to other Hispanics.22

The coefficients of most variables in the regional subsamples are similar to national estimates in Table 6, suggesting that the national results were not solely reflecting regional variations. Some interesting differences are, however, discernible in the estimates for work experience, health limitations, and industry in the New York-New Jersey Hispanic subset. All are statistically significant and considerably larger (in absolute value) than those of non-Hispanics in the region or those of Hispanics nationwide. In the subsample of Mexicans in the five southwestern states, it is noteworthy that, despite the limited variability possible in the variable for the proportion of Hispanics in the respondent's state of residence, HISPROP continues to be associated with a significantly lower probability of unemployment.



Turning to the determinants of multiple spells of joblessness, Table 8 reports the logit estimates of equations in which the dependent variable is set equal to 1 if the respondent had 2 or more spells looking for work. As in the UNEMP75 equations, education, work experience, and marital status all appear to be stabilizing influences, significantly reducing the likelihood of multiple spells for both non-Hispanic whites and Hispanics. Hispanic immigrants are generally less susceptible to multiple jobless spells than the native-born but the c efficients are only significant at the 5% level for one cohort. The non-Hispanic cohorts' coefficients are insignificant except for 1970-73 and pre-1960, which are significantly positive. Both Hispanic and non-Hispanic employees in unskilled and semiskilled occupations and in cyclical industries were found to have significantly higher probabilities, as were Hispanics in part-time jobs. And Cubans alone have a significantly (10% level) higher probability of multiple spells than the Puerto Rican reference group.23

Having focused thus far on the incidence of unemployment in our regression analysis, we now move to consider the role of various factors in determining the duration of time spent looking for work by men with some unemployment in 1975. The dependent variable is WKSUN75, and the independent variables differ only in the addition of a dummy variable (UI) equal to 1 if the individual received any unemployment insurance during the year. In restricting the sample here to men with some unemployment, the sample size for individual ethnic groups other than Mexicans becomes so small as to make it impractical to run separate regressions for each group. The OLS estimates for non-Hispanics and all



Table 8

Logit Estimates of Probability of Multiple Spells
Equations, White Non-Hispanic and Hispanic Men

Variable	White Non- Hispanic	All Hispanic
EDFOR	151***	112***
	(.035)	(.039)
EDUS	093**÷	112***
	(.024)	(.031)
EX	026*	058***
	(.014)	(.018)
EXSQ	•000	00000
	(.0002)	*2000\$ (0003)
was.	•	•
MSP	531***	430±±±
	(.148)	(.193)
CHILD5	.046	.187*
	(.110)	(.110)
CHILD517	.063	049
	(.042)	(±048)
HEALTH	.411***	2/2
	(.173)	.342 (.252)
	, ,	(.232)
IMM7475	.273	318
	(.788)	(.455)
IMM7073	1.185**	 854 * *
	(.467)	(.422)
IMM6569	.166	- 471
21110307	(.439)	471 (.392)
	(1,00)	(.3)2)
IMM6064	.093	- . 930*
	(.506)	(.476)
IMMPRE60	.665* * *	115
	(.219)	(.288)
NONWHITE		 925*
		(.527)
	, , , , , , , , , , , , , , , , , , , ,	
FLUENT	.4/8×	122
	(.213)	(.174)

(table continues)



Table 8 (cont.)

Logit Estimates of Probability of Multiple Spells
Equations, White Non-Hispanic and Hispanic Men

Variable	White Non- Hispanic	All Hispanic
OTHINC	002*** (0008)	0005 (.001)
PARTTIME	.235 (.171)	.437** (.223)
UNRATE	.070*** (.024)	.036 (.030)
occ	.959*** (.154)`	.706*** (.252)
IND	.678*** (.109)	.629*** (.147)
HISPROP	.006 (.010)	011 (.008)
Mexican		.157 (.285)
Cuban		.768* (.412)
Central & South American		123 (.501)
Other Hispanic		.265 (.328)
Constant	-3.044*** (.486)	-1.388** (.628)
-2 x log likelihood	3018.61	1559.80

Note: Dependent variable is SPELLGTI. Standard errors are in parentheses.



^{*}Statistically significant at the 10% level.
**Statistically significant at the 5% level.

^{***}Statistically significant at the 17 level.

Hispanics in all states, as well as for non-Hispanics and Mexicans residing in the Southwest, are presented in Table 9.

Although better-educated individuals tend to have higher expected returns from job search, it appears that their higher search costs and perhaps also more efficient use of search techniques lead to slightly shorter periods of time out of work. For all Hispanics, an additional year of U.S. schooling is associated with some two-thirds of a week less in job search, and for Mexicans in the Southwest the reduction is even larger. The coefficients are highly significant at the 5% level for Hispanics, but are lower and insignificant for white non-Hispanics. Additional work experience has a very weak effect for all groups. In contrast, married Hispanic men have jobless durations nearly 4 weeks below a ngle Hispanics, and the coefficient is highly significant.

Just as most Hispanic immigrant cohorts have probabilities of unemployment lower than or insignificantly different from their native-born counterparts, so also do they appear to have briefer spells out of work, although the differentials are uniformly insignificant. The same is true of the positive cohort differentials of non-Hispanics. Although, as expected, a higher local unemployment rate contributes significantly to lengthier job search (by over one-half week for both Hispanics and non-Hispanics nationwide), differences by occupational and industrial sectors appear to be insignificant. Receipt of unemployment insurance is, as previous studies have shown, associated with longer jobless periods. Among otherwise similar unemployed Hispanics, there do not appear to be significant differences by ethnic group.



Table 9

Ordinary Least Squares Estimates of Total Duration of Unemployment, 1975, for White Non-Hispanic and Hispanic Men

	All S	tates	Southwest		
Variable	White Non-	17.4 -	White Non-		
	Hispanic	Hispanic	Hispanic	Hispanic	
EDFOR	~376 *	205	-1.729	178	
	(.219)	(.229)	(1.405)	(.510)	
EDUS	180	647***	405	-1.028**	
	(.160)	(.220)	(.716)	(.408)	
EX	.078	106	-398	068	
	(.090)	(.136)	(.451)	(.234)	
EXSQ	002	.003	003	.000	
	(.002)	(.003)	(.010)	(.005)	
MSP	-2.276**	-3.761***	-12.463***	-4.293*	
	(.965)	(1.308)	(3.695)	(2.365)	
CHILD5	.519	.539	5.153	1.400	
	(.771)	(.759)	(4.698)	(1.296)	
CHILD517	051	703**	1.126	712	
	(.299)	(.316)	(1.171)	(.510)	
HEALTH	.925	1.328	1.704	3.661	
	(1.175)	(1.772)	(4.406)	(3.591)	
IMM7475	4.584	-1.079	26.378	-4.714	
	(4.668)	(3.051)	(19.508)	(5.800)	
IMM7073	4.415	-2.652	29.469	-5.131	
	(3.393)	(2.735)	(20.252)	(5.528)	
IMM6569	-1.833	743	11.463	-5.389	
	(2.424)	(2.786)	(20.062)	(5.736)	
IMM6064	4.056	-2.406			
	(3.208)	(2.630)			
IMMPRE60	047	-2.819	4.083	1.152	
	(1.512)	(1.976)	(6.527)	(3.489)	

(table continues)

Table 9 (cont.)

Ordinary Least Squares Estimates of Total
Duration of Unemployment, 1975, for
White Non-Hispanic and Hispanic Men

	A11_St	ates	Southwest		
	White Non-		White Non-		
Variable	Hispanic	Hispanic	Hispanic	Hispanic	
NONWHITE		1.224			
		(2.223)			
FLUENT	604	1.154	657	.842	
	(1.303)	(1.186)	(6.874)	(2.083)	
OTHINC	•005	.007	006	.008	
	(.005)	(.010)	(.016)	(.017)	
PARTTIME	2.190**	1.872	4.822	.974	
	(1.106)	(1.543)	(3.799)	(2.470)	
UNRATE	.586***	.595***	.754	•529	
	(.164)	(.213)	(.562)	(.324)	
occ	125	-1.279	-2.507	-3.854	
	(.968)	(1.652)	(3-390)	(2.825)	
IND	.249	1.286	1.571	1.422	
	(.761)	(1.033)	(3.142)	(1.849)	
HISPROP	.039	.002	.057	.041	
	(.078)	(.055)	(.197)	(.110)	
UI	3.529***	4.027***	6.702**	4.276**	
	(.771)	(1.055)	(2.921)	(1.856)	
Mexican		.126			
		(1.726)			
Cuban		978			
		(2.581)			
Central &					
South American	~~	-4.524 (2.840)			

(table continues)



Table 9 (cont.)

Ordinary Least Squares Estimates of Total Duration of Unemployment, 1975, for White Non-Hispanic and Hispanic Men

	All St	ates	Southwest		
	White Non-		White Non-		
Variable	Hispanic	Hispanic	Hispanic	Hispanic	
Other		-1.514			
Hispanic		(2.068)			
Constant	12.731***	19.854***	13.293	26.268***	
	(3.202)	(4.183)	(15.369)	(7.143)	
R ²	.053	.092	.245	.114	
N	1,305	678	109	269	

Note: Dependent variable is WKSUN75. Standard errors are in parentheses.



^{*}Statistically significant at the 10% level.

^{**}Statistically significant at the 5% level.

^{***}Statistically significant at the 1% level.

ANALYSIS OF PREDICTED UNEMPLOYMENT DIFFERENTIALS

To what extent are the sizable differences in the unemployment probabilities of white non-Hispanics and Hispanic ethnic groups attributable to their different characteristics, and to what extent do they reflect differential treatment in the labor market? To answer this question, each group's estimated coefficient vector in Table 6 and the mean values of characteristics were first used to predict probabilities of unemployment. The differences in predicted probabilities between white non-Hispanics and the various Hispanic groups are presented in the first row of Table 10.

The predicted difference between all Hispanics and non-Hispanics is nearly identical to the actual average difference of .066 in Table 4. Our model was especially successful in predicting the Mexican and Puerto Rican probabilities, but underestimated the actual Cuban/non-Hispanic differential and the "other Hispanic"/non-Hispanic differential by about one-third.

The average characteristics of each Hispanic group were next substituted into the white non-Hispanic logit function to evaluate the role of differential treatment. If Hispanic characteristics were treated in the same manner as those of non-Hispanics, the findings in row 2 reveal that the difference in their unemployment probabilities would fall from an unadjusted .066 to .042, a reduction of over 36%. The reductions by ethnic group range from 31.6% for Mexicans to 56.6% for Cubans. Only Puerto Ricans would be largely unaffected by such a change, due mostly to the greater impact of occupation and industry in the non-Hispanic equation. Overall, it appears that relatively unfavorable treatment of



Table 10

Decomposition of Differences in Unemployment Probabilities between White Non-Hispanics and Hispanics

Assumption	Hispanic/ Non-Hispanic Differential	Mexican/ Non-Hispanic Differential	Puerto Rican/ Non-Hispanic Differential	Cuban/ Non-Hispanic Differential	Other Hispanic Non-Hispanic Differential
Group's Own					
Characteristics					
& Coefficients	.066	.068	.085	.057	.020
Group's Own Characteristics, Non-Hispanic					
Coefficients	.042	.047	.084	.025	.011
Group's Own Coefficients, Non-Hispanic Schooling Characteristics	.019	.005	•070	.037	.003
Group's Own Coefficients, Non-Hispanic Job & Labor Market ^a Characteristics	.073	.083	•095	.051	.035
Group's Own Coefficients, All Non-Hispanic					·
Characteristics	.024	.013	015	.108	.017

Average non-Hispanic values for PARTTIME, UNRATE, OCC, IND, and HISPROP were assigned to each Hispanic group.



Hispanic characteristics in the labor market accounts for a substantial fraction of the unemployment differential.

To examine the relative importance of various characteristics, it was assumed that each Hispanic group kept its own coefficient vector and its own values of all characteristics except educational attainment (EDFOR and EDUS). The large "schooling gap" (over 3 years in our sample) between Hispanics and white non-Hispanics has often been cited as one of the most serious disadvantages hindering Hispanic earnings and employment progress. Its singular importance for unemployment is confirmed by the results reported in row 3: over 70% of the difference in unemployment probabilities between Hispanics and non-Hispanics would be eliminated solely by equalizing educational attainment levels. For Puerto Ricans, the differential falls by only 18%, and for Cubans by one-third, both resulting from lower EDUS coefficients relative to EDFOR and other groups' schooling coefficients. But the differentials of Mexicans and of other Hispanics fell by 85 to 90%.

When non-Hispanic job and labor market characteristics alone are substituted into the Hispanic equations, the difference in unemployment propensities between all Hispanics and non-Hispanics is diminished by only one-half of 1%. For most groups, the differential increases, reflecting the fact that, for example, Mexicans are less likely than non-Hispanics to be part-time workers, to live in SMSAs with high rates of joblessness, or to be in the durable manufacturing or construction industries. Only the Cuban/non-Hispanic differential is reduced (by 10.9%), due primarily to non-Hispanics' lower local unemployment rates and smaller proportion of workers employed in unskilled and semiskilled



occupations, as well as to the unusually large impact of such employment estimated in the Cuban unemployment equation.

Finally, the full set of non-Hispanic personal and labor market characteristics was substituted into the Hispanic equations. The results in the last row of Table 10 show that, with the same average characteristics as non-Hispanic whites, Mexicans would have nearly the same probability of unemployment and Puerto Ricans a slightly lower probability of unemployment than non-Hispanics. But the other Hispanic/non-Hispanic differential falls by only 19%, as the impact of increased schooling levels is largely canceled out by the deleterious effects of being assigned non-Hispanic job and labor market characteristics. The Cuban/non-Hispanic differential is the only one to rise, nearly doubling as a result of non-Hispanics' smaller proportion of schooling abroad and smaller immigration cohorts, both of which are given considerable weight in the Cuban function.

Overall, the difference in the probability of unamployment between all Hispanics and white non-Hispanics is reduced by 63.4%. It thus appears that the unemployment differential is largely attributable to differences in personal and other characteristics. The remaining one-third of the differential may reflect differences in unmeasured characteristics and discrimination. The impact of the latter may, of course, be even greater if, as a number of studies have suggested, differences in certain characteristics such as schooling are at least in part due to previous and anticipated discrimination against Hispanics (see Fligstein and Fernandez, 1982, and studies cited in that work).



SUMMARY AND CONCLUSIONS

This paper has investigated differences in the incidence and duration of unemployment among Hispanic men and between Hispanics and non-Hispanic whites. It found that, both nationally and within particular regions, Hispanics were far more likely to be unemployed one or more times in the course of 1975 than were non-Hispanics. The severity of the 1974-75 recession was reflected in the finding that nearly one-third of the unemployed were out of work for six months or more. But there does not appear to have been a significant difference between Hispanics and non-Hispanics either in the average duration of joblessness or in the effects of most personal and labor market characteristics on total spell length. Rather, the principal difference is in the higher probability of Hispanics experiencing one or more spells without work.

Differential treatment appears to play a significant role in generating the higher unemployment of Hispanics, but differences in characteristics appear to play by far the most important explanatory role. Our findings point to substantial differences among Hispanic ethnic groups in the nature of the unemployment experience and in the key characteristics influencing it. Mexican, Puerto Rican, and Cuban men had both a higher incidence and longer average duration of unemployment than Central and South Americans and the "other Hispanic" group. For Mexicans, lower schooling levels are the single most important factor accounting for their above-average probability of unemployment. If Mexicans had the same amount of schooling as white non-Hispanics, their unemployment rates would be nearly equalized. Whereas, among Mexicans, immigrants tend to have significantly lower probabilities of



unemployemnt, the opposite appears to be the case for Puerto Rican men. The large inflow of recent, increasingly rural and unskilled migrants from the island appears to contribute to their higher incidence of unemployment. Low educational levels play an influential but secondary role.

Despite relatively low unemployment rates during most years for which data are available, Cuban men appear to have been especially vulnerable to unemployment in the course of the 1975 recession. They were found to have higher probabilities of being unemployed and of experiencing multiple jobless spells than the other Hispanic groups, even after controlling for a wide variety of personal and labor market variables. The results of a decomposition analysis of the Cuban/non-Hispanic unemployment differential suggest that the concentration of largely foreign-born Cuban workers in certain low-wage occupations in high-employment SMSAs may be among the principal causes of this pattern. However, because of the extremely small size of the Cuban subsample in both the SIE and the periodic Current Population Surveys, larger data sets will be required in the future to explore more fully what appear to be significant differences in the unemployment experience among Hispanic ethnic groups.



NOTES

Note that the relative unemployment differential appears to move countercyclically: from a high of 1.69 in the slack labor market situation of 1976, it fell from 1977 to 1979, then rose again in the 1980 recession. This is, of course, far too brief a period to permit drawing firm conclusions about broad cyclical patterns in Hispanic unemployment.

²According to 1980 Census figures, persons of Spanish extraction accounted for 55.9% of the population in Miami, 27.5% in Los Angeles, 19.9% in New York City, and 19.6% in the Southwest as a whole (U.S. Bureau of the Census, 1981).

³Since April 1974, separate tabulations of labor force information on the Spanish-origin population have been published quarterly by the Bureau of Labor Statistics. Until that time, the only sources of government data on Rispanics were the decennial census and once-a-year supplements to the Current Population Survey in 1969, 1971, and 1972. For a description of the available BLS data and comparability problems with earlier series, see McKay (1974).

⁴For a detailed description of the survey methodology and questionnaire, see U.S. Bureau of the Census (1977).

⁵For a full description of the specific capital framework, see Parsons (1972).

⁶See Lippman and McCall (1976) for a review of the job search literature. Note that, unlike many studies in this literature, "duration" as used here refers not to duration per completed spell of unemployment (information not asked in the SIE survey), but rather to the full



"unemployment experience" in the course of the year, i.e., to the total number of weeks jobless and looking for work in 1975.

When this paper was already at an advanced stage, I learned of two recent studies whose findings are relevant to this issue. Tienda et al. (1981, Ch. 9) look at job search techniques and the duration of unemployment among Hispanics, also using SIE data. Their findings appear to be generally consistent with my own on duration. Chiswick (1982) used both 1970 Census and SIE data to look at weeks worked by immigrants, and finds generally fewer weeks among recent cohorts. These findings are discussed in more detail in DeFreitas (1982).

70n the occupational mobility of Cuban immigrants, see Chiswick (1978b) and Moncarz (1973). Borjas (1982) provides evidence on the high rate of investment in U.S. education by Cuban immigrants relative to otherwise comparable to Hispanics.

⁸See U.S. Bureau of Labor Statistics (1979a) for the annual unemployment rates of selected SMSAs.

⁹See, for example, Ehrenberg and Oaxaca (1976). For a review of relevant studies, see Hamermesh (1977).

10 Findings cited in the text but not included in the tables are in an appendix available on request.

11The "other Hispanic" grouping is a residual category including individuals identifying themselves as Hispanics of mixed ethnic background (e.g., Portuguese-Cuban).

12For evidence on the above-average socioeconomic backgrounds of Deminican and Colombian immigrants, the two largest Central-South American groups in New York City, see Sassen-Koob (1979).



13While the principal difference between Hispanics and non-Hispanic whites is in the incidence of unemployment, the single most important component of unemployment for all ethnic groups in 1975 was the duration of time unemployed. This can be most clearly seen by defining the personal unemployment rate for the ith individual during the year as the ratio of the number of weeks unemployed (Wui) to the total number of weeks in the labor force (Wii):

$$u_i = \frac{W_{ui}}{W_{1i}}$$

It can be easily shown (see Leighton and Mincer, 1980) that a weighted average of these rates for a given group can be computed as

$$\frac{\sum W_{ui}}{\sum W_{1i}} = \frac{U}{L} \cdot \frac{W_u}{52} \cdot \frac{1}{(1 - W_{olf}/52)},$$

where U = number of individuals unemployed during the year,

L = number of individuals in the labor force during the year,
and

Wolf * number of weeks spent out of the labor force by labor force participants during the year.

The following calculations, based on the data in columns 1, 2, and 4 of Table 4, reveal the primary importance of the duration component $(W_U/52)$ relative to the incidence of unemployment (U/L) and the non-participation component $(1/(1-W_{\rm olf}/52))$:

	U/L	Wu/52	$1/(1 - W_{olf}/52)$
Non-Hispanic White	.148	•340	1.086
Mexican	.214	.346	1.103
Puerto Rican	•228	•362	1.063
Cuban	.228	•381	1.037
Central & South			,
American	•171	.311	1.063
Other Hispanic	.179	.321	1.091

14Calculations of a measure of average duration per spell, obtained by dividing total weeks unemployed by the number of spells for each respondent with some unemployment in 1975, result in a similar ranking for all groups except Mexicans, who suffer more spells of shorter average length than white non-Hispanics or most Hispanic groups:

	White Non- Hispanic	Mexican	Puerto Rican	Cuban	Central & South American	Other Hispanic
Average	14.25	13.53	15.77	15.85	13.84	12.09
Duration per spell (in weeks)	(11.52)	(10.94)	(11.02)	(12.40)	(12.22)	(11.44)

15Unpublished BLS tabulations of Current Population Survey data on annual male unemployment rates by reason for unemployment in 1976 (the first year for which annual rates by reason among Cubans were available) likewise indicate an above-average unemployment rate due to job loss among Cubans, though the rate for Puerto Ricans is well above that found in the SIE:

	Unemployment and Over	Rates of	
	Job Losers	Quits	Entrants
All Whites	3.90	0.70	1.80
All Hispanics	7.82	1.03	3.24
Mexican	6.77	0.97	3.20
Puerto Rican	13.78	1.06	3.54
Cuban	10.60	1.68	2.24



16Tests of the equality of the coefficients of Hispanics and non-Hispanics and among the Hispanics groups yielded chi-square statistics (37.21 and 48.5, respectively) above the critical value (37.2), indicating significant differences in the unemployment parameters. Significant differences were also found between the coefficients of each Hispanic group and white non-Hispanics, except in the case of Puerto Ricans.

17Recent studies of the earnings of foreign-born men have found that the partial effect on earnings of an extra year of schooling following arrival in the United States is either slightly lower than or insignificantly different from the effect of an additional year of schooling abroad for a pooled sample of foreign-born whites (Chiswick, 1978a), but that post-immigration schooling has a higher effect than pre-immigration schooling for men from Mexico and Central and South America (DeFreitas, 1979).

18 These results are consistent with findings for native- and foreignborn white males based on 1970 Census data in DeFreitas (1979; Ch. 4).

¹⁹From 1951 to 1961, over one-half of migrants interviewed prior to departure from Puerto Rico had no previous work experience.

20See Gray (1975a) for an analysis of the occupational and industrial distributions of Puerto Ricans in New York City.

²¹Separate regressions could not be estimated for a Florida subsample owing to inadequate sample size.

²²When the UNEMP75 regression was run on an expanded sample of all Hispanic labor force participants in 1975 (OCC and IND were excluded, since no information on occupation or industry was available for non-



workers that year), the estimated ethnic group and self-employment coefficients were as follows (standard errors in parentheses):

SELF-EMPLOYED	114	(.214)
Mexican	.083	(.156)
Cuban	.446*	(.228)
Central & South American	.041	(.246)
Other Hispanic	•036	(.185)

N = 3,432

*Statistically significant at the 5% level.

Coefficient estimates of the other variables bore similar signs and magnitudes to those in Table 6, col. 2.

23Estimation of the multiple spells equation for the expanded sample of all male labor force participants resulted in an insignificantly positive differential between the self-employed and other workers and a highly significant (5% level) positive coefficient (.896) for the Cuban dummy variable.

REFERENCES

- Blau, Francine, and Lawrence Kahn. 1981a. Causes and consequences of layoffs. Economic Inquiry, 19, 270-296.
- Blau, Francine, and Lawrence Kahn. 1981b. Race and sex differences in quits by young workers. <u>Industrial and Labor Relations Review</u>, 34, 563-577.
- Borjas, George. 1982. The earnings of male Hispanic immigrants in the United States. Industrial and Labor Relations Review, 35, 343-353.
- Chiswick, Barry. 1973a. The effect of Americanization on the earnings of foreign-born men. Journal of Political Economy, 86, 897-921.
- Chiswick, Barry. 1978b. A longitudinal analysis of the occupational mobility of immigrants. Proceedings of the 30th Annual Winter

 Meeting, Industrial Relations Research Association. Madison, Wis.:

 IRRA.
- Chiswick, Barry. 1980. An analysis of the economic progress and impact of immigrants. Washington, D.C.: National Technical Information Service.
- Chiswick, Barry. 1982. The employment of immigrants in the United

 States. Department of Economics, University of Illinois at Chicago

 Circle, mimeo.
- Cohen, Malcolm, and William Gruber. 1970. Variability by skill in cyclical unemployment. Monthly Labor Review, 93 (August), 8-11.
- DeFreitas, Gregory. 1979. The earnings of immigrants in the American labor market. Unpublished Ph.D. diss., Columbia University.
- DeFreitas, Gregory. 1982. The earnings and labor force behavior of immigrants. Report prepared for the National Institute of Child Health and Human Development, Washington, D.C.

- Ehrenberg, Ronald, and Ronald Oaxaca. 1976. Unemployment insurance, duration of unemployment, and subsequent wage gain. American Economic Review, 66, 754-766.
- Flanagan, Robert J. 1978. Discrimination theory, labor turnover, and racial unemployment differentials. <u>Journal of Human Resources</u>, <u>13</u>, 187-207.
- Fligstein, Neil, and Roberto Fernandez. 1982. The causes of school transitions for Hispanics, whites, and blacks. Paper presented at the Hispanic Labor Conference, Santa Barbara, Calif., February.
- Fogel, Walter, and Arthur Corwin. 1978. Shadow labor force: Mexican workers in the American economy. In Arthur Corwin, ed., Immigrants—and immigrants: Perspectives on Mexican labor migration to the United States. Westport, Conn.: Greenwood Press.
- Gilroy, Curtis. 1974. Black and white unemployment: The dynamics of the differential. Monthly Labor Review, 97 (February), 38-47.
- Gray, Lois S. 1975a. The jobs Puerto Ricans hold in New York City.

 Monthly Labor Review, 98 (October), 12-16.
- Gray, Lois S. 1975b. A socio-economic profile of Puerto Rican New Yorkers. Bureau of Labor Statistics, Regional Report 46.
- Hamermesh, Paniel. 1977. Jobless pay and the economy. Baltimore: Johns Hopkins University Press.
- Leighton, Linda, and Jacob Mincer. 1980. Labor turnover and youth unemployment. National Bureau of Economic Research, Conference Paper No. 27. Cambridge, Mass.
- Levy, M. B., and W. Wadycki. 1973. The influence of family and friends on geographic labor mobility: An international comparison. Review of Economics and Statistics, 55, 198-203.

a sa ang papakang palang kalikang Agrang pagang paga ang pagang pagang pagang pagang pagang pagang pagang paga



- Lippman, Steven, and John McCall. 1976. The economics of job search: A survey. Economic Inquiry, 14, 155-189.
- McKay, Roberta. 1974. Employment and unemployment among Americans of Spanish origin. Monthly Labor Review, 97 (April), 12-16.
- Moncarz, Raul. 1973. A model of professional adaptation of refugees:

 The Cuban case in the U.S., 1959-70. <u>International Migration</u>, <u>11</u>, 109-114.
- Newman, Morris. 1978. A profile of Hispanics in the U.S. work force.

 Monthly Labor Review, 101 (December), 3-14.
- Parsons, Donald. 1972. Specific human capital: An application of quit rates and layoff rates. <u>Journal of Political Economy</u>, 80, 1120-1143.
- Parsons, Donald. 1977. Models of labor market turnover: A theoretical and empirical survey. In R. Ehrenberg, ed., Research in Labor Economics, Vol. 1. Greenwich, Conn.: JAI Press.
- Piore, Michael. 1979. <u>Birds of passage: Migrant labor and industrial</u> societies. Cambridge: Cambridge University Press.
- Reimers, Cordelia. 1980. Sources of the wage gap between Hispanic and other white Americans. Working Paper No. 139, Industrial Relations Section, Princeton University.
- Rogg, Eleanor, and Rosemary Cooney. 1980. Adaptation and adjustment of

 Cubans: West New York. New Jersey. New York: Hispanic Research

 Center.
- St. Marie, Stephen, and Robert Bednarzik. 1976. Employment and unemployment during 1975. Monthly Labor Review, 99 (February), 11-20.



- Sassen-Koob, Saskia. 1979. Formal and informal associations:

 Dominicans and Colombians in New York. International Migration

 Review, 13, 314-332.
- Tienda, Marta. 1980. Familism and structural assimilation of Mexican immigrants in the United States. International Migration Review, 14, 383-408.
- Tienda, Marta, et al. 1981. <u>Hispanic origin workers in the U.S. labor</u>

 market: Comparative analyses of employment and earnings.

 Washington, D.C.: National Technical Information Service.
- U.S. Bureau of the Census. 1977. <u>Technical documentation of the 1976</u>

 Survey of Income and Education. Washington, D.C.: Census Bureau.
- U.S. Bureau of the Census. 1981. Age, sex, race, and Spanish origin of the population by regions, division, and states: 1980. PC80-S1-1. Washington, D.C.: Census Bureau.
- U.S. Bureau of Labor Statistics. 1979a. Employment and training report of the President. Washington, D.C.: Department of Labor.
- U.S. Bureau of Labor Statistics. 1979b. <u>Handbook of labor statistics</u>, 1978. Washington, D.C.: Department of Labor.
- U.S. Bureau of Labor Statistics. 1981. Employment and Earnings, 28, (January).

