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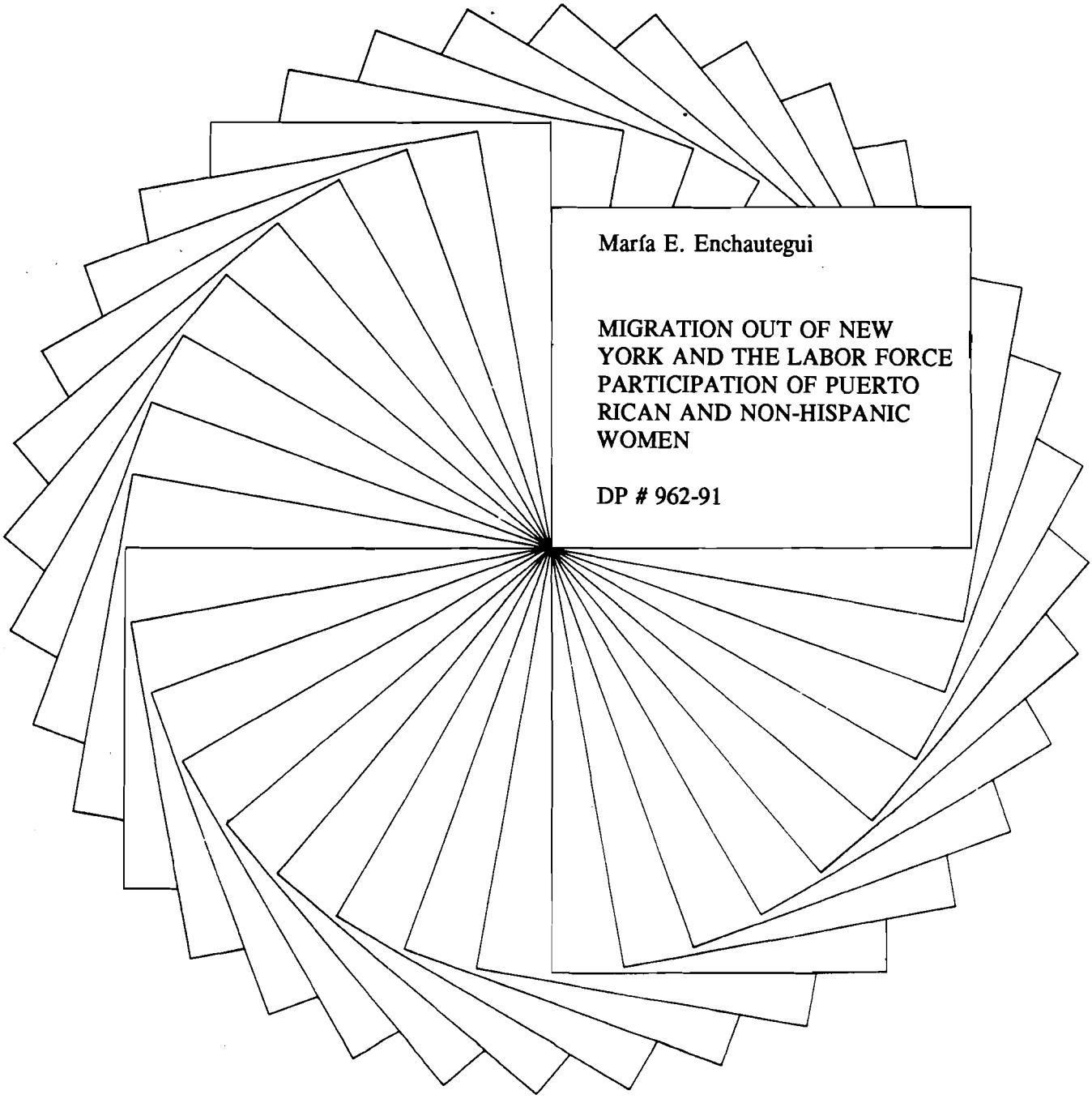

María E. Enchautegui

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DP # 962-91

Institute for Research on Poverty
Discussion Paper no. 962-91

Migration out of New York and the Labor Force Participation of Puerto Rican and Non-Hispanic Women

María E. Enchautegui
Population Studies Center
University of Michigan

December 1991

An initial draft of this paper was presented at the Annual Meetings of the Population Association of America, Washington, D.C., 1991. This research was supported in part by a grant from the Institute for Research on Poverty and by a grant from the Social Science Research Council, Committee for Research on the Urban Underclass. Any opinions expressed in this paper are those of the author alone and should not be construed as representing the position or policy of the Department of Health and Human Services, the Institute for Research on Poverty, or the Social Science Research Council.

Abstract

This paper examines the decision of Puerto Rican and non-Hispanic women to migrate out of New York and its implications for labor force participation. Between 1975 and 1980 Puerto Rican women in New York were less likely than non-Hispanic and Puerto Rican women in other locations to engage in internal mobility. New York can be characterized as being well endowed with characteristics that inhibit the migration of low-earnings-capacity individuals in general and Puerto Ricans in particular. The ethnic enclave, opportunities for low-skilled workers in the service-oriented sector, and welfare transfers absorb some of the negative impacts of sectorial shocks, reducing the desirability of out-migration. The multivariate analysis shows that the higher the expected wages and the higher the expected welfare transfers, the less likely it is that a Puerto Rican woman will become a New York out-migrant. The retaining effect of transfers is twice as large as the effect of wages. Non-Hispanic women on the contrary respond to wage differentials but not to transfer differentials. Married women are less responsive than other women to wage alternatives. Although transfers are primarily aimed at female heads of households, the effect of transfers on the out-migration decision of Puerto Ricans is uniform across marital statuses. Migration also selects in favor of the married and of those with recent labor market experience. Puerto Rican women are more senstive to monetary gains of migration and market work than non-Hispanic women. Movers have a higher labor force participation rate than nonmovers, but this can be accounted for by personal characteristics. Out-migration for nonmovers may even result in lower labor market activity. The main qualitative difference between Puerto Rican and non-Hispanic women in terms of labor force activity is the way household-related variables affect participation. Puerto Rican women are also much less likely to have recent labor market experience. The policy implications of this study are that migration out of New York will not necessarily translate into economic improvement of Puerto Ricans and that job availability is not enough to motivate market work of Puerto Rican women as long as arrangements

within the household that can accommodate market work are not made, and as long as Puerto Rican women are untrained due to their prolonged labor market withdrawal.

Migration out of New York and the Labor Force Participation of Puerto Rican and Non-Hispanic Women

I. INTRODUCTION AND BACKGROUND

In 1980, 49 percent of all Puerto Ricans in the United States were living in New York, and another 25 percent were in New Jersey, Massachusetts, Connecticut, and Pennsylvania. Concentration in depressed economic areas in the Northeast has been claimed by some scholars as one of the factors explaining the sharp decline in the socioeconomic status of Puerto Ricans during the last two decades.

Migration out of unfavorable labor markets has long been recognized as a mechanism through which individuals improve their economic lot. The significance of migration as a strategy for economic mobility is illustrated in the case of blacks for whom South-to-North migration is second only to education in accounting for the reduction in the racial wage gap between 1940 and 1980 (Smith and Welch, 1989). The case of Puerto Ricans in New York presents an opportunity to evaluate the role of migration in the face of changing economic structures for a group at an economic disadvantage and an opportunity to investigate the migration-inhibiting and migration-enhancing factors among an immigrant-origin group.

The presence of ethnic fellows is the most important determinant of the locational choice of U.S. immigrants (Bartel, 1989). In the case of Puerto Ricans, the pattern of geographical settlement has been traced to labor recruitment on the Island by mainland employers and to the subsequent information network created by contracted workers (Maldonado, 1979). Concentration of ethnic fellows not only determines the initial location of U.S. immigrants, but it is also an important determinant of internal migration within the United States (Bartel, 1987; Tienda and Wilson, 1989). Immigrants are less likely to move out of those cities where their compatriots constitute a large percentage of the total population (Bartel, 1987; Tienda and Wilson, 1989).

Research on the causes and consequences of U.S. internal migration for immigrants (Bartel, 1987; Tienda and Wilson, 1989) and for the population as a whole (Nakosteen and Zimmer, 1980; Antel, 1980; DaVanzo and Hosek, 1981; Hunt and Kau, 1985) has for the most part focused on the effect of migration on male wages. Research on Hispanic men (Bartel, 1987; Tienda and Wilson, 1989) reports that at least in the short run, the consequences of migration for wages are negligible. Though that research has proven fruitful, its implications for groups at an economic disadvantage characterized by low wage participation, high female headship, and significant economic contribution of women to the household budget, are more limited. Moreover, the emphasis on wages is particularly restrictive in cross-section analyses of migration, since wage gains take time to accrue.

Gains from migration for a group at an economic disadvantage should be evaluated in the light of a broader range of outcomes related to economic performance. Tienda and Fielding (1987) present results which suggest that migration has disruptive consequences for the labor force participation of Hispanic men. Upward occupational mobility of immigrants (Chiswick, 1977) and the relationship between migration and welfare use have also been investigated (Blank, 1988; Clark, 1989). In that research, while income is what ultimately drives migration, outcomes other than wages are used as summary indicators of economic welfare.

The increasing economic role of women within the household calls for investigation of the determinants of female migration. Women's migration as a means of offsetting unfavorable labor market conditions is particularly important among low-income households, where women contribute to more than 64 percent of the total family budget (Blau and Farber, 1986). The large percentage of female-headed families among low-income groups also underscores the importance of assessing the role of women's migration as a means of economic mobility. The internal-migration experience of women in the United States, however, has been little explored. Women are seen as tied migrants and hence, the little research on women's migration has focused on its consequences rather than on its

determinants. Morrison and Lichter (1988) and Lichter (1983, 1980) find that migration reduces the labor force participation of married women. Earlier research also indicated that married women experience a decline in earnings after migration (Polachek and Horvath, 1977; Sandell, 1977), though the long-term effects are small (Lichter, 1983).

Analysis of the labor market-related behavior of Puerto Rican women and of migration strategies as an expression of that behavior can provide valuable information about the causes of economic stagnation for this minority group. Migration out of New York is of particular relevance. New York hosts the largest concentration of Puerto Ricans in the United States, and in New York, more so than in other locations, Puerto Rican families are likely to be headed by a female, women are likely to be out of the labor market and on welfare, and male spouses are likely to be jobless or to occupy low-skilled jobs (Enchautegui, forthcoming). Consequently this paper will focus on the migration decision of Puerto Rican women in New York and its consequences for labor force participation. A parallel analysis is conducted for a group of non-Hispanic women.

The conceptual framework considers the earnings uncertainty and the earnings capacity of the individual in determining the role of labor- and nonlabor-income attractions of locations. The effect of welfare income on the migration decision of Puerto Ricans is of special interest since almost a quarter of Puerto Rican families are on welfare and New York's welfare benefits are relatively high. Recent work has looked at the effect of welfare payments on migration decisions. Blank (1988) reports that both wages and welfare payments have significant effects upon the locational choices of female heads of households and that expected income has a larger effect on the locational choice of those who do not receive welfare. Gramlich and Loren (1984) also find that welfare benefits determine direction of the migration flows. Clark (1989) concludes that high welfare benefits lower the out-migration of women.

This paper expands the current research in at least three ways. First, it provides a migration-decision framework that can explain why some people move for wages while others move for public transfers. Second, by analyzing Puerto Rican and non-Hispanic women separately, the effects of transfers on migration decisions are not diluted since low- and high-risk groups are analyzed separately. Finally, the initial locational endowment of Puerto Ricans is specified to determine the context in which the migration decision takes place, and in this regard, this paper goes further than previous research in identifying mobility-inhibiting as well as mobility-enhancing factors. Occupational/industrial mobility, public transfers, and the ethnic enclave are identified as migration-inhibiting forces. These factors can be used as nonmigration survival strategies to deal with declining economic opportunities. Linkages between migration and labor force participation arise because income alternatives that determine participation in the labor force vary by location.

Descriptive data used throughout this paper come from the 5/100 Public Use Micro-Files of the 1970 and 1980 Census. The multivariate analysis is conducted with 1980 data. The mobility outcome refers to mobility out of New York state since in this way intra-SMSA movements such as those from New York City to those sections of New Jersey and Connecticut that belong to the New York City SMSA can be captured. Though more recent information can be obtained from the Current Population Survey, the Census is the only data set that produces enough cases to conduct a reliable analysis of the migration of Puerto Rican women out of New York.

II. THEORETICAL FRAMEWORK

The starting location from which individuals make their decision can be thought of as an endowment (Blank, 1988). The probability of migration is defined as the probability of moving out of location j at point t+i, given that a woman was living in location i at point t. The initial locational endowment determines the context in which the migration decision takes place, and, since the

characteristics of the current location determine the relative attractiveness of other locations, the initial locational endowment determines the desirability of out-migration. Individuals who have been assigned to unusually good locations in period 0 will be less likely to move out than individuals who were assigned to bad locations. Locations, and hence individuals across locations, vary according to their endowment. Migration is the conditional probability of changing location given a particular locational endowment at period t (Ω_t). Let the endowment be represented as:

$$\Omega_{i,t} = \Omega_i (R_{1,i,t} , R_{2,i,t} , \ldots R_{n,i,t})$$
$$\Omega_{j,t} = \Omega_j (R_{1,j,t} , R_{2,j,t} , \ldots R_{n,j,t})$$

where R represents the characteristics of that location. Out-migration rates (OMR) will be lower in the better-endowed locations:

$$\Omega_{i,t} > \Omega_{j,t} \Rightarrow OMR_{i,t} < OMR_{j,t}$$

At period t, a woman lives at location j where she confronts a locational endowment $\Omega_{j,t}$.

If location j is the chosen destination, that location must maximize indirect utility (V) coming from total net income (NI) at every point. Let I* be an unobserved latent variable indicating the level of utility differential between location i and location j (subscripts indexing individuals and time periods are omitted).

$$I^* = V(NI_j) - V(NI_i) \qquad (1)$$

The utility differential index I* is not observed. Only its dichotomous realization is observed which indicates whether a threshold differential has at least been achieved and hence that the woman is a migrant:

$$I = 1 \text{ if } I^* > 0 \quad i.e\ V(NI_j) > V(NI_i) \qquad (1')$$
$$=0 \text{ otherwise}$$

Total income consists of work and nonwork income. Nonwork periods can be financed through savings, debts, or public transfers. Individuals with a low earnings capacity can rely less on debts and savings to finance periods of nonwork than individuals with a high income capacity, and hence they will be more likely to rely on public transfers to finance joblessness.

Unemployment compensation and welfare are well-known public transfers that support periods of nonwork. As with wages, there are large interstate variations in the amount of public transfers, as well as in the rules governing their receipt. In some states married couples can receive welfare, while in others they cannot. In some states Medicaid recipiency is attached to welfare participation while in others it is not. The minimum income level required for eligibility also varies by state. Interstate differentials in the size of welfare payments are large. In Texas the maximum AFDC monthly payment in 1980 for a family of four was 140 dollars, while New York's was 476 dollars.

Let W_j be the wage that a person with an X_1 vector of personal characteristics will obtain at location j, and let T_j represent public transfer payments available at j. Public transfers are set by government authorities. When labor income does not accrue, expenses must be financed through public transfers. Locations vary in terms of the wages they offer, in terms of the probability (Pr) of obtaining wages, and in terms of the size of transfers. Expected total income at location j is:

$$TI_j = E[W_j(X_1)] * Pr(W_j(X_2) > 0) + T_j * (1 - Pr(W_j(X_2) > 0)) \quad (2)$$

where X_2 is a vector that determines wage participation. A similar expression holds for total income at the origin i:

$$TI_i = E[W_i(X_1)] * Pr(W_i(X_2) > 0) + T_i * (1 - Pr(W_i(X_2) > 0)) \quad (3)$$

Under total wage participation, expected total income will just be E[W]. Unstable and low-earnings-capacity groups are characterized by a low E[W] and a low Pr(W > 0). Individuals facing these circumstances have to figure out ways of supporting periods of nonwork. Hence, low-earnings-capacity individuals will be expected to place a greater weight on the transfer attractiveness of locations than individuals with a high earnings capacity.

Individuals with a low earnings capacity will locate in areas that maximize both labor and nonlabor income, since the nonlabor portion could be a significant part of their expected total income. Individuals with high and stable earnings will locate in areas where wages are high, even if public transfers are low. Consequently, individuals more likely to be on welfare, such as female heads of households and the less educated, prefer to reside in high-welfare-payment areas. But since these areas are commonly high-wage areas, individuals moving to high-welfare areas are actually maximizing expected total income and not necessarily transfer income. The positive correlation between wages and transfers across locations suggests that low-earnings-capacity groups will find it easy to switch between work and nonwork supported by transfers.[1] Low-earnings-capacity individuals who locate in low-wage areas will find this alternation more difficult; however, these types of locations will unlikely be preferred by them.

Locations also offer nonmonetary attractions such as personal safety, quality schools, and good weather. Some authors have suggested that there has been a change in the motives for migration from economic to noneconomic factors (McCarthy and Morrison, 1977; Beale, 1977; Richter, 1985). However, these trade-offs can only be made by persons with a sufficiently high level of income. High enough wage levels are seldom attained by minority groups, limiting the room for giving up monetary gains for the nonmonetary amenities of a location. From this theoretical framework, groups at an economic disadvantage will be expected to be more sensitive to the economic alternatives of the locations, other things constant, than groups with high and stable income.

Costs of migration are related to the psychic cost of moving to another place, to direct expenses of the move, and to the cost of gathering information about potential destinations. The psychic costs of leaving relatives and friends and moving to another place become positive if migration does not take place. A well-informed decision not to migrate also involves information costs. Let M represent a set of variables determining mobility cost. The net income associated with migration is:

$$\begin{aligned} NI_j &= TI_j - C_j(M) \\ NI_i &= TI_i - C_i(M) \end{aligned} \quad (4)$$

and the decision rule becomes:

$$\begin{aligned} I &= 1 \quad \textit{if} \quad V(TI_j - C_j(M)) > V(TI_i - C_i(M)) \\ &= 0 \quad \textit{otherwise} \end{aligned} \quad (5)$$

The labor force participation and migration decisions of women are related through the income alternatives that both migration and labor force participation provide. The same vector of personal characteristics accrues different income levels at different locations. As long as locations

vary according to wage offers and according to that part of the reservation wage that is determined by public transfers, the decision to participate in the labor force is location-specific and hence intrinsically related to migration.

Similar to equations (1) and (1'), the decision to participate in the labor force at location k is given by:

$$\begin{aligned} L_k^* &= V(W_k > 0, T_k = 0) - V(W_k = 0, T_k > 0) \\ L_k &= 1 \text{ if } V(W_k > 0, T_k = 0) > V(W_k = 0, T_k > 0) \qquad k=i,j \\ L_k &= 0 \text{ otherwise} \end{aligned} \tag{6}$$

Migrants and nonmigrants differ in their probability of being in the labor force because by being placed in different locations they confront different prices of work and leisure. If mobility and labor force participation increase with expected labor income, the migration decision and the labor force participation decision are interrelated.

III. MEDIATING FACTORS IN THE DECISION OF PUERTO RICANS TO MIGRATE OUT OF NEW YORK

From the theoretical framework derived in the previous section, the locational endowment of New York must be specified to assess the desirability of out-migration. To evaluate the role of labor and nonlabor income, the overall standing of Puerto Rican workers needs to be considered.

Since the beginning of the massive migration flow to the mainland, New York has been the preferred location of Puerto Ricans. By 1960, 80 percent of all Puerto Ricans in the United States were living in New York state (Bean and Tienda, 1987), the overwhelming majority in New York City.

Most of the Puerto Rican men and women in New York were employed as operators in the manufacturing industry. Those who were not operators in factories were similarly on the lower ladder of the industrial/occupational distribution.

During the seventies New York City lost 40 percent of its manufacturing employment (Kasarda, 1989). The manufacturing wage rate went from 95 percent of the national average to 87 percent (Sassen-Koob, 1985b), and real manufacturing wages increased only by 10 percent between 1965 and 1980. Whether reductions in wages and manufacturing employment will encourage migration depends on alternative economic strategies offered by New York and hence on the locational endowment of Puerto Ricans living there.

Table 1 presents out-mobility rates of Puerto Ricans, non-Hispanic blacks, and non-Hispanic whites for persons 20 years old and over and for women aged 25 to 54. Although Puerto Ricans are concentrated in declining manufacturing sectors in New York City, the 6.9 out-mobility rate of Puerto Ricans in New York is lower than the out-mobility rates of all other states, except Illinois. New Jersey, with the second largest concentration of Puerto Ricans, has an out-mobility rate of 8.1. The numbers across columns cannot be taken as an indication that Puerto Ricans are less mobile than other ethnic groups. Puerto Ricans can return to the Island, in which case they will not be included in the sample. What these numbers communicate is that Puerto Ricans in New York are less likely to move to another location within the United States than are Puerto Ricans in other parts of the country.

The low out-mobility rate in New York suggests the presence of strong retaining factors. The working hypothesis throughout this paper is that relative to other locations within the United States, New York is well endowed of characteristics that inhibit out-migration. Three factors are identified: the ethnic enclave, opportunities for low-skilled workers in the service industry, and public transfers. The remainder of this section is dedicated to their discussion and their relevancy for Puerto Ricans.

TABLE 1

Out-Mobility Rates for Puerto Ricans and Non-Hispanics in Selected States, 1975-1980

	Puerto Ricans	Non-Hispanic Whites	Non-Hispanic Blacks
Women 25-54			
New York	6.1%	10.1%	7.6%
All 20+			
New York	6.9	11.1	8.6
New Jersey	8.1	12.3	7.0
Massachusetts	9.3	11.7	15.1
Connecticut	7.0	11.3	11.5
Pennsylvania	10.5	7.5	6.2
California	8.3	9.4	6.9
Illinois	6.4	12.0	6.3
Texas	23.6	7.5	4.7
Florida	9.5	14.2	6.7
Other[a]	12.8	4.1	2.9

Source: 5/100 PUMS, Sample A, 1980 U.S. Census of Population.

Note: Sample excludes those enrolled in school, in the armed forces, with work disabilities, in nonfamily households or in quarters, and who had self-employment income, social security, or profit income. Among non-Hispanics, those born outside the United States are also excluded.

[a]Refers only to mobility out of "Other."

Ethnic Networks

The cultural, informational, and support networks created by the ethnic enclave represent a kind of location-specific capital that is lost upon migration. The benefits associated with residing next to one's kin need not be restricted to nonpecuniary factors. Some indeed concern money matters, such as rent sharing, child care services, and grocery credits. The ethnic enclave is thus a retaining force in migration decisions of immigrant-origin groups.

A tendency to move to places with a large concentration of ethnic fellows is observed in the case of Puerto Rican women who moved out of New York between 1975 and 1980 (Table 2). The preferred locations of Puerto Rican women are states with large concentrations of Puerto Ricans, such as New Jersey. Next are areas with large concentrations of other Hispanic groups, such as Florida and California. Non-Hispanic women are more likely to move to the residual category than Puerto Rican women.

Preference for areas with large concentrations of ethnic fellows delineates the internal mobility patterns of Puerto Ricans and, to that extent, their gains from migration. While nonimmigrants have available a whole range of alternative locations, the locational choices of immigrants are limited to a few, and some high-wage areas may not even be considered.

Locations with a small concentration of relatives and friends will have to offer compensating wage differentials to attract immigrants. This is consistent with the observation that only moves toward locations with a lower amount of relatives and friends result in higher wages (Bartel, 1987) and that residing in areas with a large concentration of ethnic fellows results in wage penalties (Tienda and Lii, 1987).

Due to the trade-offs between wages and relatives and friends, losses resulting from residing in a low-wage area are actually lower for immigrants than for nonimmigrants. Locational differences

TABLE 2

Destination of New York Out-Movers, 1975-1980 (Women 25-54)

Destination	Puerto Ricans	Non-Hispanic Blacks and Whites
New Jersey	25.9%	11.0%
Florida	20.9	22.1
California	15.0	5.9
Pennsylvania, Connecticut, Massachusetts	23.2	19.8
Illinois	2.3	1.3
Other Midwest	2.3	5.1
Other	10.5	34.8
Total	100	100
N	[220]	[192]

Source: Data for Puerto Ricans are from the 1980 5/100 PUMS, Sample A, U.S. Census of Population. Data for non-Hispanics are from 1/10 and 1/100 extracts of blacks and whites, respectively, of the 1980 5/100 PUMS, Sample A, U.S. Census of Population.

Notes: Sample excludes women who were enrolled in school, in the armed forces, with work disabilities, in nonfamily households or quarters, and who had self-employment, social security, or profit income. Among non-Hispanics, those born outside the United States are also excluded. Percentages may not sum to 100 due to rounding. Percentages of non-Hispanics are weighted to produce the 5/100 sample.

in wages therefore are a better description of the gains and losses resulting from migration by a nonimmigrant.

Opportunities for Low-Skilled Workers

The service sector in New York City has been characterized as very dynamic, absorbing a considerable proportion of low-skilled labor (Sassen-Koob, 1985a). Between 1977 and 1981 while manufacturing employment was in decline, the service industries grew by 20 percent (Sassen-Koob, 1985b). There is also evidence that the manufacturing industry has been transformed, from unionized, medium-sized firms, to downgraded manufacturing firms distinguished by their small size and their anachronistic forms of employment such as subcontracting, sweat shops, home labor, and piece rate work (Marshall, 1987; Fernandez-Kelly and Garcia, 1989).

Low-skilled jobs in the growing service-oriented sector and downgraded manufacturing keep attracting new immigrants to New York City (Sassen-Koob, 1985b; Marshall, 1987). There are indications that the less skilled of the recent and internal Puerto Rican migrants prefer New York and that the more skilled locate in other parts of the country (Enchautegui, forthcoming). Service-oriented industries provide an alternative source of employment for displaced manufacturing workers, therefore reducing the desirability of out-migration.

To assess the labor market standing of Puerto Ricans in New York and the opportunities for low-skilled workers, information on industrial and occupational distributions and labor market activity by educational level is examined. Although a matching of skills with education is more imperfect among minority than among nonminority groups, data analyzed throughout this paper clearly show that a high school diploma makes a difference, particularly in terms of the labor market activity of Puerto Rican women. The large percentage of high school dropouts among Puerto Ricans, 56 percent in 1980, further underscores the importance of looking at the low-educated persons separately. The bottom line concerning the labor market activity and industrial and occupational distributions of

Puerto Ricans in New York is that service-oriented jobs have become an increasingly important source of employment for low-skilled workers, even allowing for increments in the labor market activity of Puerto Rican women in times of declining manufacturing, and that restructuring of the demand for labor has had differential impacts by sex.

The industrial distribution of Puerto Rican men and women and non-Hispanic women in New York by education is presented in Table 3. Manufacturing employment among Puerto Rican women declined by 13 points between 1970 and 1980. The proportion of white women in manufacturing declined by 3 points while the proportion of blacks changed little. Most of the decline in the manufacturing employment of Puerto Ricans was offset by employment in the professional-services industry, which increased by 10 points. This industry includes, among others, offices of physicians and lawyers, hospitals, nursing, and health care and child care services.

The increasing role of the service-oriented industries in the employment patterns of low-skilled Puerto Rican workers is demonstrated in the 1970 to 1980 rates of growth by industry and ethnicity. From Table 3 it is seen that employment of low-educated workers in the professional services grew by 58 percent for Puerto Rican women. The corresponding rates for white and black women are 11 and 46 percent, respectively.

Table 3 also shows that manufacturing employment among low-educated Puerto Rican women dropped by 6 points, 7 points less than the overall decline. But despite this, manufacturing still employs the overwhelming majority of low-educated Puerto Rican women. Auxiliary tabulations not presented in the table demonstrate that manufacturing has become more intensive in the use of low-skilled Puerto Rican female labor. In 1970, 27 percent of Puerto Rican women with twelve or more years of education were employed in manufacturing in comparison to 17 percent in 1980. These figures are supply-side indirect evidence that Puerto Rican women might be participating in a downgraded manufacturing sector.

TABLE 3
Industrial Distribution of Puerto Ricans, Non-Hispanic Whites (NHW), and Non-Hispanic Blacks (NHB): New York, 1970-1980, 16-64 Years Old

	Puerto Rican Women				NHW Women				NHB Women				Puerto Rican Men			
	All		Educ ≤ 11		All		Educ ≤ 11		All		Educ ≤ 11		All		Educ ≤ 11	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
Agr./Mining	.8%	6.0%	.7%	.7%	1.2%	1.3%	1.1%	1.5%	.7%	.4%	1.1%	.7%	4.4%	4.0%	4.4%	4.5%
Manufacturing	43.4	30.1	54.9	48.5	19.7	16.8	28.9	26.8	13.7	14.3	16.5	17.3	31.7	27.2	34.6	32.4
Transp./Ent.	2.6	4.0	1.3	2.6	3.7	3.9	2.4	3.1	5.5	7.3	3.2	5.8	9.8	10.2	9.3	7.7
Utilities	.3	.2	.1	.4	.5	.4	.5	.4	1.2	.4	.8	.1	1.4	1.3	1.5	1.1
Trade	14.3	15.1	14.6	16.3	21.9	22.1	28.5	30.5	11.2	9.0	13.1	7.5	21.3	19.8	21.6	21.6
Bus. and Finance	12.7	13.8	9.8	6.4	14.7	15.2	10.8	12.1	14.5	14.7	10.9	9.1	13.6	15.9	12.4	15.3
Pers. Services	4.6	3.4	5.4	5.1	4.9	2.9	9.1	5.9	15.5	7.7	25.2	16.3	5.1	3.2	5.9	3.8
Prof. Services	17.6	27.2	10.9	17.2	29.3	33.4	15.5	17.3	32.0	38.6	25.8	37.7	7.7	13.3	6.9	10.8
Public Admin.	3.7	5.1	2.1	3.1	3.9	3.9	2.9	2.8	5.5	7.4	3.4	5.4	4.7	4.8	3.2	2.7

Source: 1970, 1980 5/100 PUMS, Sample A, U.S. Census of Population.
Note: Columns may not sum to 100 due to rounding.

The occupational distribution of the less educated vis-à-vis the overall distribution presents still another perspective of the standing of Puerto Rican workers within the restructuring of labor demand in New York (Table 4). The most significant change between 1970 and 1980 is the 15 point decline in the proportion of women operators and laborers. This decline was matched by employment increases in high-level white-collar occupations, sales, and services. Less-educated Puerto Rican women were less affected by the declining manufacturing employment. Their representation in operator and laborer occupations declined only by 9 points, and it was matched by increases in the service-oriented occupations.

Lower-educated white women find easier access to low-level white-collar occupations (i.e., sales and administrative support) than minority women. A total of 39 percent of low-educated white women were in low-level white-collar occupations in 1980 in comparison with 26 percent of Puerto Ricans and 23 percent of blacks.

Between 1970 and 1980 employment in service occupations declined among black women, stayed constant among whites, and increased among Puerto Ricans. The largest growth, 35 percent, was experienced by low-educated Puerto Rican women.

Table 4 also shows that Puerto Rican men are more likely to be in the service occupations than Puerto Rican and non-Hispanic women. The entrance of Puerto Rican men into the service occupations preceded women's. In 1970, a fifth of the low-educated Puerto Rican men but only 13 percent of the women were in service occupations. By 1980, service occupations employed 28 percent of the low-educated Puerto Rican men and 17 percent of comparable women. The increased employment share of the less educated in service occupations speaks to the increasing demand of this sector for low-skilled workers and how it has accommodated labor no longer absorbed by other traditional manual occupations.

TABLE 4

Occupational Distribution of Puerto Ricans, Non-Hispanic Whites (NHW), and Non-Hispanic Blacks (NHB): New York, 1970-1980, 16-64 Years Old

	Puerto Rican Women				NHW Women				NHB Women				Puerto Rican Men			
	All		Educ ≤ 11		All		Educ ≤ 11		All		Educ ≤ 11		All		Educ ≤ 11	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
Prof. Adm. Exec. and Mgr.	7.8%	13.8%	3.2%	4.7%	20.9%	27.5%	5.8%	5.1%	13.6%	19.4%	5.9%	6.4%	8.3%	12.5%	4.9%	5.4%
Sales	4.1	8.9	4.6	9.2	7.9	11.8	10.2	17.4	2.9	5.4	3.4	4.1	4.9	5.9	3.7	4.7
Adm. Support	32.5	35.4	18.6	17.0	42.8	35.3	27.8	21.1	35.1	35.5	19.7	19.1	12.2	14.3	9.2	10.0
Precision	4.0	3.5	5.7	5.4	12.5	1.6	2.3	2.8	1.5	1.9	2.5	2.4	14.8	14.3	14.2	14.3
Operators/ Laborers	38.9	24.3	54.3	45.6	1.6	8.8	29.0	24.5	14.2	10.8	19.1	17.7	38.7	29.1	43.8	37.0
Services	12.5	14.1	13.4	17.9	14.1	14.8	24.7	29.1	32.2	26.9	48.8	50.3	20.7	23.7	23.7	28.5

Source: 1970, 1980 5/100 PUMS, Sample A, U.S. Census of Population.

Note: Columns may not sum to 100 due to rounding.

Undoubtedly, part of the changes in the industrial and occupational structures of Puerto Ricans in New York resulted from increasing educational levels between 1970 and 1980. The more-educated Puerto Rican men and women have found employment in high- and low-level white-collar occupations. The less educated, however, continue to be employed as laborers, operators, and service workers. If anything, the less educated, particularly men, are moving down the occupational ladder, from machine operators in manufacturing to menial workers in the service industry.

Table 5 presents information on labor market activity. The catalytic role of the service sector in times of manufacturing decline can be seen in the trends in the labor market activity of Puerto Rican women. Most noticeable is the fact that the decline in manufacturing jobs in New York during the seventies did not push Puerto Rican women out of the labor force. In fact, their labor force participation increased by 6 points between 1970 and 1980. This increase, moreover, was not limited to the more educated: the labor force participation rate of high school dropouts was 26 percent in 1970 and 28 percent in 1980.

Another indicator of the effect of restructuring on Puerto Ricans is the 1975-80 labor force dropout rates, which refer to the percentage of persons who held a job anytime between 1975 and 1980 but who were out of the labor force by 1980. These are presented in Table 6. Despite the decline in manufacturing, Puerto Rican women in New York were not more likely than Puerto Rican women in other states to drop out of the labor force, suggesting that alternative sources of labor income were pursued.

The trends in the labor market activity of Puerto Rican men in New York are different from those of women. Puerto Rican men proved to be more vulnerable to restructuring. As Table 5 indicates, the wage participation rate of Puerto Rican men dropped from 81 to 73 percent, and from 80 to 66 percent among high school dropouts. The case of men is also different in that their labor force dropout rates are higher in New York than in other states.

TABLE 5

Wage and Labor Force Participation of Puerto Ricans by Educational Level: New York, 1970-1980, 18-54 Years Old

	In the Labor Force				Wages > 0			
	1970		1980		1970		1980	
	Men	Women	Men	Women	Men	Women	Men	Women
Educ < 11	81.1%	26.5%	72.1%	27.8%	79.3%	28.7%	66.4%	26.3%
Educ = 12	88.9	46.7	83.9	51.6	85.5	50.6	79.8	50.8
Educ > 14	79.1	61.1	90.1	68.4	79.1	65.7	86.7	68.7
All	82.9	32.8	77.6	39.5	80.8	35.6	72.6	38.4

Source: 1970, 1980 5/100 PUMS, Sample A, U.S. Census of Population.

Note: Sample excludes those enrolled in school and those in the armed forces.

TABLE 6

Labor Force Dropout Rates, 1975-1980, by Location: Puerto Ricans, 20-54 Years Old

Location	Dropout Rate	
	Men	Women
California	5.12%	13.99%
Florida	5.03	15.90
Illinois	5.86	10.89
New Jersey	5.44	12.59
New York	7.34	11.13
Other Northeast	7.35	12.12
Midwest	6.41	14.67
Other	5.88	17.01

Source: 1980 5/100 PUMS, Sample A, U.S. Census of Population.

Note: Sample excludes those enrolled in school and those in the armed forces.

The decline in the labor market activity of Puerto Rican men combined with the increase in that of women is intriguing. Several explanations could be advanced. First, the occupational choices of low-skilled Puerto Rican men are more limited than women's, primarily because low-level white-collar jobs and some jobs in the service industry are traditionally occupied by women. Another explanation is that by operating mainly in low-skilled service jobs such as cleaning and food service, Puerto Rican men are in direct competition with other immigrants, while Puerto Rican women are protected by low-level white-collar jobs. Finally, Puerto Rican men and women could be substitutes in the labor market in which case a gain (entrance into the labor market) made by one will be accompanied by a loss (exit out of the market) made by the other. Further inquiry into these contentions are beyond the scope of this paper.

The implications for migration are that alternative sources of income provided by both a growing service sector and downgraded manufacturing reduce the desirability of out-migration. The larger impact on men implies that migration out of New York will strongly select in favor of married women.

Welfare Payments

Owing to a limited earnings capacity of and a large proportion of families headed by women, government transfers are expected to be a significant component of the total expected income of Puerto Ricans and hence a mediating factor in migration decisions when faced with shocks to locational characteristics. By providing income in times of nonwork, welfare payments reduce the advantage of out-migration as a strategy to cope with income losses.

While employment in nondurable manufacturing was declining and New York was losing competitiveness in terms of wages, the public transfer package became more attractive. The real value of AFDC, Medicaid, and Food Stamps increased by 27 percent between 1965 and 1975 in comparison to an 8 percent increase in the real value of weekly manufacturing wages. Figures 1

through 3 present time series for monthly wages in the apparel and other textile industries and the monthly value of the welfare package for New York, New Jersey, and the nation. Between 1972 and 1978 monthly wages in New York went down. The dollar value of transfers, on the contrary, increased sharply between 1972 and 1974, and then declined, with the 1978 level still higher than the 1972 level. In New York, the trough of wages in 1970 and 1974 coincided with peaks in welfare payments, producing the lowest wage/welfare ratios. Only after 1978 did the size of the welfare package start to go down below the pre-1972 levels. The wage/welfare ratio was lower and declined faster in New York than in New Jersey and the nation. From 1969 to 1970 and from 1974 to 1979 the average monthly welfare payment in New York was lower than the average monthly wage of a worker in the garment industry.

Of the locations likely to be chosen by Puerto Ricans between 1975 and 1980, only Connecticut and California had higher monthly welfare payments than New York. High public transfer payments are part of New York's locational endowment that facilitates a switch between labor and nonlabor income and makes New York an attractive location for low-earnings-capacity individuals.

IV. MULTIVARIATE METHOD

To investigate the determinants of New York out-migration and its consequences for labor force participation, equations (5) and (6) need to be estimated using simultaneous techniques. Equations (5) and (6) are a set of two seemingly unrelated dichotomous outcomes joined by correlated errors (Greene, 1990). A likelihood function to estimate joint outcomes under probit structures has been proposed by Ashford and Sowden (1970) and Heckman (1978). But a further complication of the analysis of labor force participation and mobility is that since migrants and nonmigrants are selected by wages and transfer attractiveness, the sample of migrants is not a random sample, and

Fig. 1: Monthly Wages in the Apparel Industry: 1968-1985
New York, New Jersey and U.S.

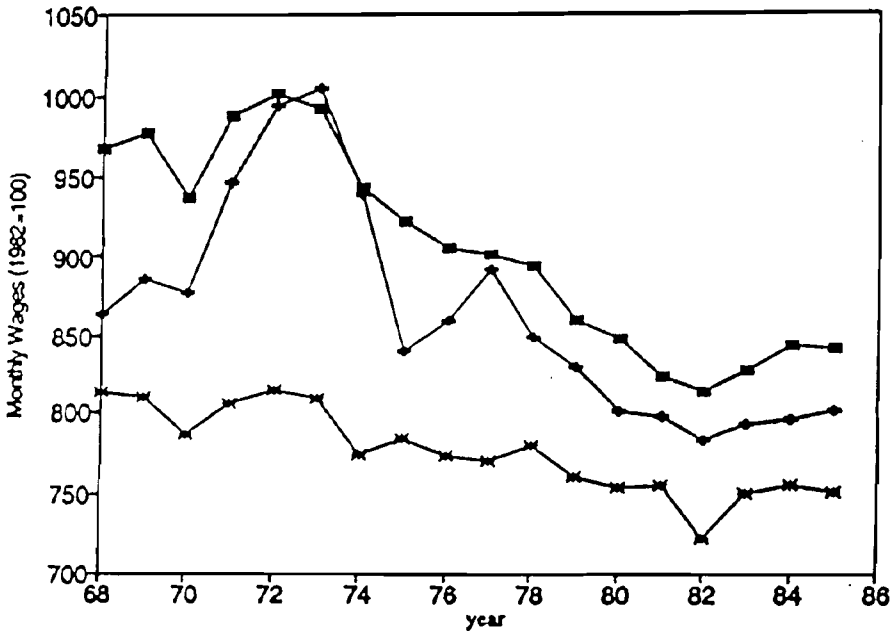


Fig 2: Value of the Welfare Package: 1968-1985
New York, New Jersey and U.S.

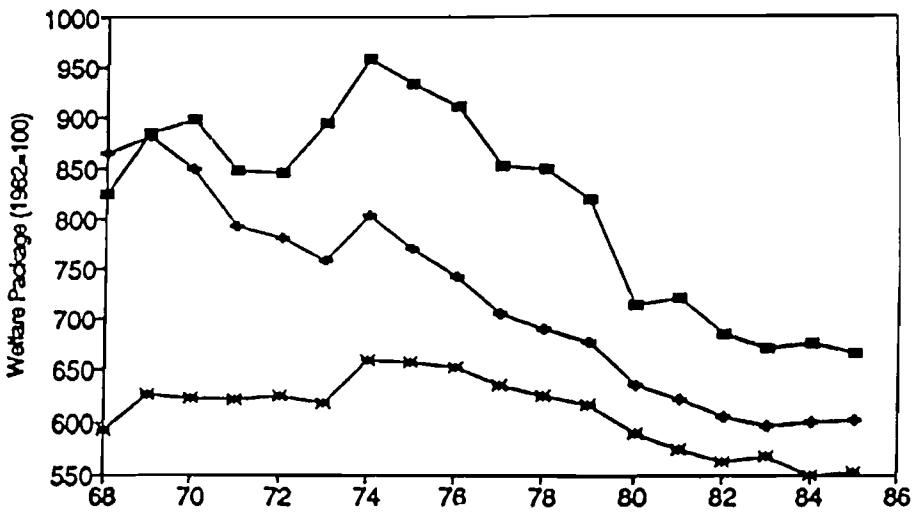
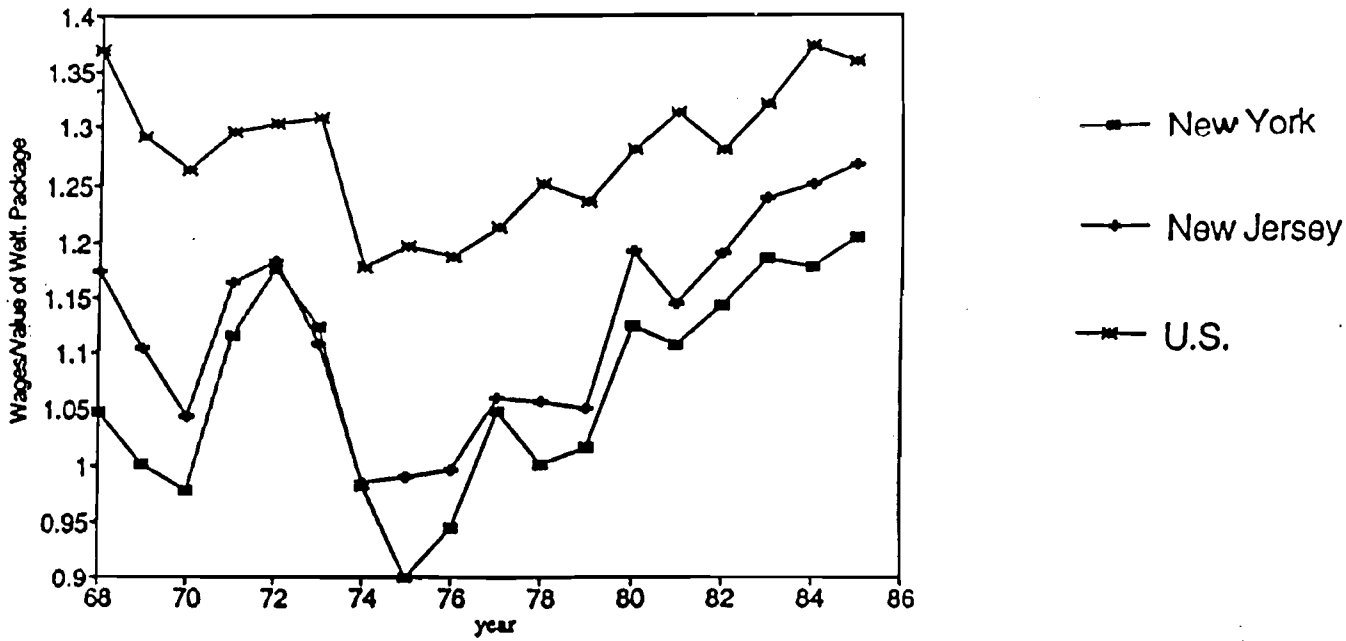


Fig. 3: Ratio of Monthly Wages in the Apparel Industry
to the Monthly Value of the Welfare Package



their labor force participation is observed only if they select themselves into the sample. Two-step estimation methods have been suggested by Heckman (1979) for the case of continuous variables. However, the two-stage method is not readily applicable to discrete variables. Self-selection bias in the case of dichotomous variables has been addressed by Dubin and Rivers (1990) and Wynand and Bernard (1981). The specification of Wynand and Bernard and Dubin and Rivers would imply that the only information on nonmigrants is that they are nonmigrants; no labor force participation information is available for them. In migration analysis, information on conditional outcomes is often available for both migrants and nonmigrants. Nakosteen and Zimmer (1980), DaVanzo and Hosek (1981), and Tunali (1986) use structural shift or switching regression models to analyze migration-decision consequences for migrants and nonmigrants. Since the switching techniques assume a two-regime structure, they can be used to evaluate the conditional outcomes of the two self-selected samples. An analog to the switching regression model in the case of dichotomous variables can be constructed based on the Wynand and Bernard and Dubin and Rivers likelihood functions, in which there is one migration-decision equation and two labor force participation equations. The procedure requires switching the criterion that determines which cases are censored.

The following system is a general representation of the linkages between migration and labor force participation in the latent variables L* (labor force participation) and I* (migration). Z represents nonincome attractions of the choice when self-selection is involved:

$$L^* = f(W_k, T_k, Z_k) + e_k \qquad k=i,j$$

$$I^* = g(W_j, T_j, W_i, T_i, Z_i, Z_j) + \nu$$

$$I = 1 \quad \text{if} \quad I^* > 0, \quad 0 \quad \text{otherwise}$$

$$L_k^* = L_j^* \quad \text{if} \quad I=1, \quad L_j=1 \quad \text{if} \quad L_j^* > 0, \quad 0 \quad \text{otherwise}$$

$$L_k^* = L_i^* \quad \text{if} \quad I=0, \quad L_i=1 \quad \text{if} \quad L_i^* > 0, \quad 0 \quad \text{otherwise.}$$

The two likelihood functions for a switching probit model are:[2]

$$L_0 = \prod_{L=1,I=1} F(X1B1, X3B3, rho1) * \prod_{L=0,I=1} F(-X1B1, X3B3, -rho1) + \prod_{I=0} f(-X3B3)$$

$$rho1 = Cov(\nu, \epsilon_j)$$

$$L_1 = \prod_{L=1,I=0} F(X1B2, -X3B3, -rho2) * \prod_{L=0,I=0} F(-X1B2, -X3B3, rho2) + \prod_{I=1} f(X3B3)$$

$$rho2 = Cov(\nu, \epsilon_i)$$

where X1B1 represents the labor force participation equation of movers; X1B2, the labor force participation of nonmovers; X3B3, the mobility equation; F, the bivariate probit; and f, the univariate.

The theoretical framework requires estimation of the wage and transfer opportunities in New York and alternative locations as expressed in equations (2) and (3). Wages at each location are estimated through a regression equation using information on individuals living at that location. Wages are predicted on the basis of personal characteristics. Transfers at each location refers to the value of the welfare package for a family of four; it is the sum of AFDC payments, Medicaid, and Food Stamps, weighted by the proportion each one of them represents in the total welfare package. The probability of wage participation is estimated for each location using information on individuals living at that location and using as predictors a set of personal attributes determining earnings capacity and home production efficiency. With this information, measures of income in case of work (W*Pr(W>)) and nonwork (T*(1-Pr(W>0)) for location i and location j[3] are obtained.

The dependent variable (MOB) is 1 if the woman left New York between 1975 and 1980 and 0 otherwise. Labor and transfer alternatives out of New York for Puerto Rican (non-Hispanic) nonmigrants are an average of the expected wages and transfer alternatives in all other locations, weighted by the proportion of Puerto Ricans (non-Hispanics) at that location.[4] For migrants, it refers to predicted opportunities in New York versus predicted opportunities in the chosen location. In the

tables, WAGEDIF and BENTDIF stand for expected weekly wage differentials between New York and the alternative location and for expected weekly welfare payment differentials, respectively.

In addition to the income variables, the migration equation contains a set of psychic cost variables (place of birth [NATIVE], which is dummy variable with a value of one if the person was born on the mainland; a dummy for New York birth [NYNAT] is used for non-Hispanics); variables related to initial conditions (central city residence in 1975 [CENT75] and out of the labor market for five years or more [NWORK]); information variables (education [EDUC], AGE, and a dummy for English fluency [FLUENT]); and a control for marital status (HEAD, SINGLE) and race. The wage and transfer attractions are also interacted with race and marital status.

A labor force participation equation with a dichotomous outcome (PART=1,0) is estimated. An interest pursued in the estimation of the labor force participation equation is the differentiation of the direct effects of monetary gains of market activity from those that affect home production efficiency. The crude market gains from labor force participation are obtained by regressing wages on women with wages by location. The value of the welfare package is subtracted from the predicted weekly wages to provide a measure of the opportunity cost of market work. The labor force participation equation thus contains a variable for the opportunity cost of market work net of transfer payments (OPPCOST) and a set of variables for home production efficiency: presence of small children (SMALLK), number of persons in the household (NPERSHH), headship status (HEAD), education (EDUC), the exogenous income effect (EXOGINC),[5] AGE, and central city residence (CENTRAL).

Only women 25 to 54 in 1980, with no work disability, not in the armed forces, not enrolled in school, not living in quarters, and whose income, if positive, comes from wages and salaries, are included. Non-Hispanic women born outside the United States are also excluded. The sample of Puerto Rican women comes from the 5/100 PUMS. The sample of non-Hispanic women comes from

a 1/10 and a 1/100 extract of blacks and whites from the 5/100 PUMS. A weighting procedure was used to produce a 5/100 sample of non-Hispanics, and the standard errors have been adjusted to reflect the true values. The total number of cases used in estimating wages and the probability of wage participation is 6,861 for Puerto Ricans and 27,657 (unweighted) for non-Hispanic women. These equations were estimated for New York and nine other locations. The migration and labor force participation equations were estimated using only those cases that were residing in New York in 1975. This produced 3,534 cases of Puerto Ricans and 2,213 unweighted cases of non-Hispanics, 220 Puerto Rican migrants, and 192 (unweighted) non-Hispanic migrants.

V. MULTIVARIATE RESULTS OF MIGRATION AND LABOR FORCE PARTICIPATION

Table 7 presents 1980 mean characteristics of movers and nonmovers. Earnings and transfers are adjusted for state cost of living. In agreement with other research, movers have a higher mean education and are younger than nonmovers. Among Puerto Ricans, movers tend to be more fluent in English and are more likely to have been born in the United States. Migration selects in favor of those women with current labor market experience, but still a third of Puerto Rican movers have been out of the labor force for five years or more.

Migration out of New York leads to suburbanization. More than two-thirds of the Puerto Rican movers were living in the central city in 1975. This proportion declined to 37 percent by 1980. Non-Hispanic movers also show a decline in central city residency. The overwhelming majority of Puerto Rican nonmovers live in the central city, with a decline of only three percentage points between 1975 and 1980.

Differences between non-Hispanic movers and nonmovers in marital status are very small. Among Puerto Ricans, however, selectivity of New York out-migration according to marital status is

TABLE 7

Means of the Variables Used in the Multivariate Analysis

	Puerto Ricans		Non-Hispanics	
	Movers	Nonmovers	Movers	Nonmovers
PART	.51	.43	.64	.61
EDUC	10.50	9.70	13.65	12.51
HEAD	.24	.34	.08	.12
SINGLE	.17	.17	.20	.18
MARRIED	.59	.49	.72	.70
AGE	34.70	36.55	34.65	37.96
FLUENT	.58	.47	--	--
BORN US	.31	.21	--	--
(BORN NY)	--	--	.59	.80
NWORK	.34	.48	.13	.27
SMALLK	.37	.30	.39	.24
NPERSHH	3.93	3.86	3.22	3.67
CENTRAL	.37	.89	.18	.36
CENT75	.80	.92	.46	.40
BLACK	--	--	.125	.154
EXOGINC	$11,651	$9,423	$19,684	$18,613
OPPCOST	$59.99	$23.69	$80.80	$28.91
WAGEDIF	-$16.45	-$22.59	-$19.75	-$19.74
BENTDIF	$38.7	$10.8	$9.00	$11.30
EARNINGS	$3,925	$2,975	$5,027	$4,445
WEEKLY WAGES (H>O)	$176.08	$174.00	$212.10	$160.80
(H>O, EDUC<12)	$129.80	$144.50	$133.10	$138.60
(H>O, EDUC>=12)	$198.30	$198.10	$221.20	$170.20
WEEKS (H>O)	40.88	44.15	38.80	43.80
N	[220]	[3314]	[192]	[2021]

Source: Data for Puerto Ricans are from the 5/100 PUMS, Sample A, 1980 U.S. Census of Population. Data for non-Hispanic blacks and whites are from 1/10 and 1/100 extracts, respectively, of the 5/100 PUMS, Sample A, 1980 U.S. Census of Population.

Notes: Values for non-Hispanics have been weighted to produce the 5/100 sample. The sample size N is the unweighted sample size.

strong. The mean statistics show that New York retains heads of households while it exports the married.

Movers are more likely to be in the labor force than nonmovers, especially among Puerto Ricans. Nonetheless, among women with positive hours, nonmovers have worked more weeks. The lower mean weeks worked of migrants, coupled with their higher labor force participation, suggests that labor market disruption associated with migration more likely takes the form of unemployment or part-time work than withdrawal.

The labor force participation of Puerto Rican women is around 10 points lower than that of non-Hispanics. However, the work advantage of non-Hispanics disappears when the zeros are excluded. Joblessness as expressed in terms of inactivity instead of underemployment or reduced hours seems to be the policy-relevant outcome for explaining differentials in labor market behavior among Puerto Rican and non-Hispanic women. Hours worked as a continuum is a less relevant outcome in explaining differentials in the labor market performance of these two groups.

Table 7 shows that movers have higher mean earnings than nonmovers but this comes in part from higher labor force participation. Controlling for weeks worked, the advantage of Puerto Rican movers in terms of weekly wages reduces to two dollars, while the earnings advantage of non-Hispanic movers persists. The small wage earnings advantage of Puerto Rican movers reflects the trade-offs involved in the migration decision of immigrant-origin groups. Preference for areas with a high concentration of Hispanics limits the mobility choices and hence the mobility gains of Puerto Ricans.

Predicted wage gains from migration are given by WAGEDIF, which is an estimation of the weekly wage a woman would make in New York minus what she would make in the alternative location. WAGEDIF is negative and hence consistent with the observation that during the seventies

New York lost wage competitiveness relative to other locations. These numbers however are small, amounting to around 20 dollars per week for all the groups under analysis.

Less-educated nonmovers, both Puerto Rican and non-Hispanic, have a higher weekly wage than comparable movers. Likely, migration greatly disrupts the wage-generation process of the less educated. Less-educated workers are less informed about the wage distribution at a chosen location and less likely to search for employment prior to the move, and their migration decision is more likely to be fostered by unemployment, all of which delay the gains from migration.

The Migration Decision

Tables 8 presents estimates of the mobility equation. Model I includes only personal characteristics and Models II-IV include income variables.

Important differences emerge in the relationship between the education and mobility of Puerto Ricans and non-Hispanics. Education is not significant in the migration decision of Puerto Ricans in New York, but it is significant and with the expected sign for non-Hispanics.[6] The absence of educational selectivity of migration out of New York of Puerto Rican women may be unique. Other research has found positive effects of education on migration, but it is not directly comparable since it focuses on men and on all internal movers (Tienda and Wilson, 1989). A small education effect was expected due to the attraction of the ethnic enclave, but rendering it insignificant is most important, since it relates to the interplay of the ethnic enclave and the traditional migration-enhancing factors of information and credentials.

In Model I, the positive sign of EDUC collects both, the effect of differentials in opportunities across locations which favor the more educated, and the comparative advantage of the more educated in gathering information. Model II includes wage and transfer differentials and hence controls for opportunities, leaving only the information effect. For Puerto Ricans, EDUC changes signs in going from Model I to Model II from positive to negative, while for non-Hispanics its sign

remains positive. For Puerto Ricans, the same also happens to FLUENT, a variable that, like education, determines information and opportunities. The positive and insignificant sign of EDUC for Puerto Ricans in Model I indicates that, if anything, education increases income opportunities outside New York, but that the gains of the more educated from moving are not significantly different from the gains of the less educated. When these gains are controlled in the way of wage and transfer differentials, the more-educated Puerto Ricans are more likely to stay in New York.

The sign behavior of the education variable provides interesting insights about how information-education connections operate among immigrant groups. That the less-educated Puerto Rican is more likely to migrate out of New York than the more educated suggests that after controlling for income alternatives, the information-education linkages among immigrants do not operate through providing a national labor market. Instead education equips the immigrant with a competitive edge within the ethnic enclave. The more educated are more efficient in processing information provided by relatives and friends, and in the local labor market they are better able to explore nonmigration alternatives in the face of restructuring.

The results show that married women are more likely than other women to be New York out-movers. This is a composite effect that summarizes the influence of negative locational factors on both husband and wife. As hypothesized, selectivity by marital status is particularly strong among Puerto Rican women. The much larger propensity of Puerto Rican married women to migrate out of New York net of income alternatives in Model II is due to the worsening labor market position of Puerto Rican men in New York. The pattern of marital selectivity of New York out-migration leaves behind the female heads and hence those more likely to be poor.

Women who have been out of the labor force for five years or more are less likely to migrate than otherwise comparable women. Prolonged labor market withdrawal results in insensitivity to labor market attractions of other locations and to the ups and downs of the local economy. This is

true for both Puerto Ricans and the comparable group. However, its effect in defining migration patterns will be larger on Puerto Ricans, since 45 percent of the Puerto Rican women in this sample have not worked for more than five years in comparison to 25 percent of non-Hispanics.

CENT75 reduces the out-migration of Puerto Ricans but increases the out-migration of non-Hispanics. Suburbanization of jobs and the manufacturing decline are often claimed as having reduced the opportunities of low-skilled workers in the central city (Kasarda, 1988). Since Puerto Ricans are concentrated in New York City, CENT75 was expected to increase out-migration. The higher out-migration probabilities for suburbanized Puerto Ricans indicate that suburban residence does not guarantee access to jobs, particularly for low-skilled workers. In New York City suburban jobs seem to require higher skills, while opportunities for low-skilled workers continue to be provided by the central city.

Place of birth, whether Puerto Rico or the continental United States, is inconsequential in the equation for Puerto Ricans. The advantage of the native-born given by the descriptive statistics does not persist after controlling for education, age, and fluency. The insignificance of nativity speaks for the tightness of the Puerto Rican neighborhood enclaves. It implies that the mainland and Island born are equally likely to rely on relatives and friends as a support network. It follows then that the assimilation of second generation Puerto Ricans into mainstream American society is, at best, slow.

Black non-Hispanic women are less likely to leave New York than white women but this effect disappears after controlling for income variables.

Models II through IV in Table 8 include income variables. The income attractiveness variables behave as expected. Higher expected wages in New York relative to wages in other locations retain people in New York. This is true for Puerto Rican women and for the comparison group. The computed derivative of WAGEDIF is larger among Puerto Ricans than among non-Hispanics. A fifty dollar increase in the weekly wage differential reduces the out-migration of Puerto Ricans by .13 and of non-Hispanics by .09, derivatives of .0027 and .0018 per dollar, respectively.

TABLE 8

Probit Estimates of the Mobility Equation: Puerto Rican and Non-Hispanic Women in New York in 1975, 25-54 Years Old (Standard Errors in Parentheses)

	Puerto Ricans			Non-Hispanics			
	I	II	III	I	II	III	IV
CONSTANT	-.80	-.044	.60	-1.26	-1.29	-1.01	-1.00
	(.270)	(.305)	(.319)	(.358)	(.400)	(.405)	(.404)
AGE	-.012	-.022	-.022	-.020	-.024	-.024	-.024
	(.004)	(.005)	(.005)	(.004)	(.005)	(.005)	(.005)
EDUC	.006	-.016	-.016	.078	.074	.072	.071
	(.011)	(.012)	(.015)	(.017)	(.020)	(.020)	(.020)
FLUENT	.025	-.093	-.094	--	--	--	--
	(.078)	(.083)	(.083)				
NATIVE (NYNAT)	.117	.022	.024	-.642	.710	-.699	-.711
	(.085)	(.089)	(.090)	(.091)	(.092)	(.092)	(.092)
MARRIED	.137	.658	--	.158	.249	--	--
	(.069)	(.136)		(.090)	(.099)		
HEAD	--	--	-.644	--	--	-.245	-.357
			(.153)			(.208)	(.157)
SINGLE	--	--	-.668	--	--	.135	-.210
			(.144)			(.158)	(.107)
NWORK	-.185	-.135	-.138	-.335	-.291	-.290	-.288
	(.072)	(.078)	(.079)	(.103)	(.104)	(.104)	(.104)
CENT75	-.447	-.185	-.184	.122	.130	.138	.131
	(.099)	(.106)	(.106)	(.083)	(.090)	(.090)	(.090)

(table continues)

TABLE 8 (continued)

	Puerto Ricans			Non-Hispanics			
	I	II	III	I	II	III	IV
WAGEDIF	--	-.026 (.004)	-.026 (.004)	--	-.013 (.004)	-.010 (.006)	-.013 (.004)
WAGEDIF*MARRIED	--	.027 (.006)	-.028 (.006)	--	--	-.003 (.008)	--
WAGEDIF*BLACK	--	--	--	--	.005 (.009)	--	.005 (.001)
BENTDIF	--	-.050 (.007)	-.051 (.007)	--	.007 (.005)	-.011 (.009)	-.008 (.006)
BENTDIF*MARRIED	--	.002 (.009)	.005 (.002)	--	--	.001 (.010)	--
BENTDIF*BLACK	--	--	--	--	.012 (.012)	--	-.014 (.012)
BLACK	--	--	--	-.411 (.131)	-.116 (.192)	-.357 (.135)	-.093 (.193)
LOGLIK	-795	-718	-718	-639	633	634	633

Source: Estimates by the author based on data from the 5/100 PUMS, Sample A, and 1/10 and 1/100 extracts of the 5/100 PUMS, Sample A , 1980 U.S. Census of Population.

The larger responsiveness of Puerto Ricans to wage differentials agrees with the proposed hypothesis that low-income groups are less able to make a trade-off between wages and the nonmonetary attractions of a location, making them more sensitive to wage alternatives. No difference is found in wage effects between black and white women.

Married women are less responsive to wage differentials than unmarried women, but this interaction is significant only for Puerto Ricans. This, again, alludes to a migration decision in which factors other than married women's wage alternatives enter into consideration. Presumably one of these factors is husband's wages.

The results also lend support to the hypothesis that transfer income is a significant force in the migration decision of low-income groups. For Puerto Ricans the coefficient of BENTDIF is twice as large as the coefficient of WAGEDIF. Non-Hispanics, on the contrary, are more sensitive to wage differentials than to transfer differentials, and the latter effect is statistically trivial.

Puerto Rican married women are as sensitive to transfer differentials as unmarried women, an interesting result since transfers are directed mainly to female heads of households. However, this agrees with the conceptual framework in that transfers are perceived as a potential source of income for low-earnings-capacity individuals. Public transfers need not be a current source of income but they could be perceived as a resource in the case of income losses. Marriage instability may induce married and single women to choose locations with high transfer payments. Unstable labor market employment conditions of the husband may also induce married women to consider the transfer payments of a location.

Labor Force Participation

Labor force participation equations for movers and nonmovers conditional on the migration outcome were estimated for Puerto Ricans and non-Hispanics. Some specifications of the labor force participation and mobility equations proved to be more tractable for the switching probit estimates

than others. Some specifications would not produce a global maximum; in others the correlation coefficients were outside the range. The labor force participation of movers conditional on mobility consistently produced very high correlation terms for both Puerto Ricans and non-Hispanics.[7] The switching probit estimates presented in Table 9 under the heading "Bivariate Probit" were obtained by joint estimations with Model III in Table 8. Results from the univariate probits are also presented along with results for the sample of movers and nonmovers combined.

Model I is the basic, univariate probit participation equation estimated for the total sample, where personal characteristics capture both the effect of market opportunities and home production efficiency. Model II includes a dummy for mobility status and adds monetary gains from participating. The last row (PDF) presents the value of the probability density function evaluated at the means which, multiplied by the coefficient, produces the derivatives and can be used to make comparisons across equations. The results of Models I and II are discussed first, followed by the sample-specific results.

Movers with similar observed characteristics have a lower probability of being in the labor force than nonmovers, and the effect is larger among Puerto Ricans. Since MOVER is endogenous, the censored corrected results and simulations will shed more light on this result.

As Model I in Table 9 shows, the most marked difference between Puerto Rican and non-Hispanic women is the way that the household composition variables alter labor market activity. The lowest probability of labor force participation among Puerto Ricans corresponds to heads of households, followed by married women (reference category) and singles. Non-Hispanic heads on the contrary are more likely to be in the labor force than married women. While other researchers have found the same pattern (Bean and Tienda, 1987; Reimers, 1985), their lack of control of skill prices makes it difficult to interpret whether the lower labor force participation of Puerto Rican heads is just a price effect or if the effect prevails after controlling for the opportunity cost of market work. The lower labor force activity of Puerto Rican female heads in this model cannot be attributed to the

TABLE 9

Estimates of the Labor Force Participation Equation, 1980, Puerto Rican and Non-Hispanic Women in New York in 1975, 25-54 Years Old (Standard Errors in Parentheses)

	Puerto Ricans						Non-Hispanics					
	All		Movers		Nonmovers		All		Movers		Nonmovers	
	I	II	Univar. Probit	Bivar. Probit	Univar. Probit	Bivar. Probit	I	II	Univar. Probit	Bivar. Probit	Univar. Probit	Bivar. Probit
CONSTANT	-.246	.442	.500	.248	.977	.354	-.403	.522	1.25	1.25	.996	.656
	(.202)	(.230)	(.785)	(.814)	(.252)	(.252)	(.286)	(.377)	(1.18)	(1.19)	(.472)	(.435)
EDUC	.078	-.005	.042	.041	-.068	-.041	.094	.017	.036	.036	-.027	-.030
	(.007)	(.014)	(.034)	(.036)	(.018)	(.017)	(.013)	(.024)	(.059)	(.052)	(.033)	(.030)
HEAD	-.180	-.185	-.115	-.105	-.194	-.180	.424	.385	.799	.799	.346	.365
	(.060)	(.061)	(.265)	(.272)	(.063)	(.060)	(.106)	(.107)	(.511)	(.345)	(.112)	(.106)
SINGLE	.438	.400	.447	.346	.369	.339	.503	.445	.563	.563	.423	.369
	(.066)	(.067)	(.275)	(.277)	(.069)	(.065)	(.090)	(.090)	(.309)	(.233)	(.098)	(.086)
NPERSHH	-.125	-.087	-.181	-.206	-.054	-.044	-.036	.004	-.0009	-.0009	.024	.033
	(.015)	(.016)	(.059)	(.051)	(.018)	(.017)	(.021)	(.024)	(.105)	(.075)	(.027)	(.024)
SMALLK	-.506	-.530	-.299	-.383	-.575	-.523	-.914	-.916	-.984	-.984	-.930	-.827
	(.056)	(.057)	(.211)	(.209)	(.060)	(.056)	(.078)	(.078)	(.306)	(.217)	(.083)	(.075)
CENTRAL	-.286	-.338	-.107	-.167	-.419	-.249	-.220	-.390	.348	.348	-.554	-.398
	(.066)	(.071)	(.210)	(.201)	(.077)	(.070)	(.067)	(.082)	(.285)	(.182)	(.099)	(.091)
AGE	-.001	-.004	-.009	-.015	-.006	-.001	-.004	-.006	-.033	-.033	-.004	-.001
	(.003)	(.003)	(.014)	(.014)	(.003)	(.003)	(.004)	(.004)	(.016)	(.011)	(.004)	(.004)
BLACK	–	–	–	–	–	–	.253	.131	-.221	-.221	.102	.093
							(.095)	(.101)	(.360)	(.237)	(.111)	(.103)

(table continues)

TABLE 9 (continued)

	Puerto Ricans						Non-Hispanics					
	All		Movers		Nonmovers		All		Movers		Nonmovers	
	I	II	Univar. Probit	Bivar. Probit	Univar. Probit	Bivar. Probit	I	II	Univar. Probit	Bivar. Probit	Univar. Probit	Bivar. Probit
EXOGINC	.5-5 (.3-5)	.3-5 (.3-5)	-.8-5 (.1-4)	-.2-5 (.1-4)	.2-5 (.3-5)	.5-6 (.3-5)	-.1-4 (.2-5)	-.1-4 (.2-5)	-.2-4 (.6-5)	-.4-04 (.7-5)	-.1-4 (.2-5)	-.9-5 (.2-5)
OPPCOST	--	.014 (.002)	.004 (.003)	.004 (.003)	.025 (.003)	.019 (.003)	--	.007 (.002)	.003 (.003)	.001 (.002)	.012 (.002)	.008 (.002)
MOVER	--	-.417 (.119)	--	--	--	--	--	-.250 (.134)	--	--	--	--
RHO	0	0	0	.338 (.153)	0	-.960 (.042)	0	0	0	.699 (.142)	0	-.980 (.011)
LOGLIK.	-2,149	-2,124	-134	-850	-1,970	-2,634	-1,278	-1,271	-101	-771	-1,159	-1,701
PDF[a]	.39	.39	.39	.34	.39	.38	.37	.36	.36	.39	.37	.39

Source: Estimates by the author based on data from the 5/100 PUMS, Sample A, and from 1/10 and 1/100 extracts of the 5/100 sample, 1980 U.S. Census of Population.

[a]Obtain the derivative by multiplying the corresponding PDF by the coefficient.

concentration of Puerto Ricans in a high-welfare-benefit state, since 90 percent of all non-Hispanic their women in the sample also live in the New York. It also cannot be result from skill-price differentials or their size relative to welfare transfers, since those are controlled for in the OPPCOST variable. Furthermore, as Model II in Table 9 indicates, the labor force participation of Puerto Rican female heads of households is quite insensitive to the inclusion of monetary gains of market work, as indicated by the virtual lack of change in the size of the coefficient of HEAD when OPPCOST is added.

Since more than 40 percent of the Puerto Rican households are headed by women, a better understanding of the market behavior of female heads is required to interpret the divergent work patterns of Puerto Rican and non-Hispanic women. Although there could be more to direct monetary gains of market work than what is included in this equation, another possible line of research is one that investigates informal arrangements of market work, which presumably are facilitated through the ethnic enclave, and the dynamics of marital unions among Puerto Rican women. Unfortunately, survey data are limited in this regard.

Another household-related variable that sets different trajectories of market work among Puerto Ricans and non-Hispanics is household size. A larger household size reduces the likelihood of market participation for both groups, but it is significant only for Puerto Ricans. The persons that are added to the Puerto Rican household either increase the demand for home services or allow for substitution away from women's market time toward other adults' work. The larger number of children in the Puerto Rican household increases the demand for home services. On the other hand, the high proportion of female headship implies that additions to the Puerto Rican household also come from the presence of the husband, generating an interchange between other adult work and women's work.

Income accruing to the household exogenous to women's earnings is insignificant among Puerto Rican non-movers. It has the expected negative sign for non-Hispanics and for Puerto Rican

movers. Explanations for this anomaly could be traced to the different monetary arrangements within the household. Owing to the high percentage of female headship among Puerto Rican women in New York, income accruing to the households to which these women belong mainly comes from members other than the husband. This exogenous income need not be shared with the woman and hence it is incapable of reducing her labor supply (Enchautegui, forthcoming).

No evidence is found that the presence of small children constrains the labor force participation of Puerto Ricans more than that of non-Hispanics, nor that Puerto Rican women attach a greater value to taking care of their own children. The derivative of the presence of small children is -.33 for non-Hispanics and -.20 for Puerto Ricans.[8] Since child care costs are not considered in the OPPCOST variable, SMALLK includes not only the nonmonetary benefit of taking care of one's children but also the monetary losses associated to market work. Puerto Rican mothers may have a child care cost advantage over non-Hispanics. The ethnic enclave provides Puerto Rican women with relatives and friends and other informal sources of child care that are less expensive than the formal arrangements likely to be used by non-Hispanics.

After controlling for wage rates or opportunity cost, education should be negative, since more- educated women are more productive at home. In Model II education is negative among Puerto Ricans and positive among non-Hispanics. In both cases it is statistically insignificant. Its positive sign in the equation for non-Hispanics suggests the two different ways in which education determines labor force participation, keeping market wages constant, namely economic necessity and self-realization. There are indications that the nonmonetary rewards of market work are greater for non-Hispanic women. While the entrance of Hispanic women into the labor force is a product of economic necessity, white women's seems to be the product of self-realization (Fernandez-Kelly and Garcia, forthcoming; Pedraza-Bailey, forthcoming). This same rationale can be used to explain the larger sensitivity of Puerto Rican women to monetary gains of market work. In Table 9,

computation of the derivative shows that an increase of 25 dollars in the OPPCOST leads to an increase in labor force participation of .13 for Puerto Ricans and .06 for non-Hispanics. Consequently, the labor force participation of Puerto Rican women will exhibit larger variations across the business cycle than the labor market activity of non-Hispanics.

Turning to the bivariate probits, the RHO terms are positive for movers and negative for nonmovers. Among movers, those more likely than expected to be movers are more likely than expected to be in the labor force. Similarly, among nonmovers, those more likely than expected to be nonmovers are more likely than expected to be in the labor force. The signs of the RHO coefficients reflect the relationship between the migration and labor force participation decisions and the optimality of the outcome of the decision process. Movers in the migration regime are more likely than expected to be in the labor force, but so are nonmovers in the nonmigration regime.

The variables included in the labor force participation equation are better able to explain variations in the labor force participation of non-Hispanic movers than in that of Puerto Rican movers. The number of persons in the household and the presence of small children are statistically significant in the equation for Puerto Rican movers, while HEAD, SINGLE, SMALLK, AGE, CENTRAL, and EXOGINC are significant in the equation for non-Hispanic movers. The results for nonmovers resemble the estimates for the total sample.

The negative effect of headship among Puerto Rican women applies to both movers and nonmovers. However, headship is less of a deterrence to labor force participation for movers. Central city residency decreases labor force participation among non-Hispanic nonmovers but increases it among movers. Exogenous income behaves as expected among Puerto Rican movers, but it has the contrary sign for nonmovers. As mentioned above, the differential impact of exogenous income could be associated with the monetary arrangements of adults within the household. After

controlling for the monetary gains of market work, higher levels of education reduce market activity among Puerto Rican nonmovers.

Simulations

The consequences of migration out of New York for the labor force participation of Puerto Rican women can be explored by attributing to nonmovers the vector of coefficients of movers. Similarly, to investigate if it is not migration but personal characteristics and the value of market work that matter, the vector of characteristics of movers should be attributed to nonmovers. The first column in Table 10 marked "Actual" presents the observed joint probabilities of the different outcomes of labor force participation and mobility (PART,MOB); a reading of (1,0), for instance, indicates the probability of being a labor force participant and a nonmover, whereas a reading of (0,1) indicates the probability of being a labor force nonparticipant and a mover. The column also shows the labor force participation probabilities given mobility status (IN LF/MOB=1;IN LF/MOB=0) and total labor force participation (IN LF). The heading "Base" refers to predictions obtained from the statistical models. Under the heading "X-Movers" the vector of characteristics of movers is attributed to nonmovers, while under the heading "B-Movers" the vector of coefficients of movers is attributed to nonmovers. In order to provide broader evidence of the effects of mobility on labor force participation, simulations are made not only for the switching probit models (3-CELLS) but also for the univariate and the bivariate probit models (4-CELLS).

The 3-CELLS columns in Table 10 present figures for labor force participation obtained from the switching probit model that assumes that observations on migrants are censored. The 3-CELLS model produces estimations from the two observed joint outcomes (1,0; 0,0) and for the censored outcome (MOB=1). The base predictions of the 3-CELLS model use the switching probit (bivariate) coefficients of labor force participation presented in Table 9 and the vector of coefficients of the mobility equation that resulted from this estimation. The mean characteristics of the labor force

TABLE 10

Labor Force Participation Simulations: Puerto Rican and Non-Hispanic Women

	Base				Simulations					
					X-Movers			B-Movers		
	Actual	Univariate Probits	3-CELLS	4-CELLS	Univariate Probits	3-CELLS	4-CELLS	Univariate Probits	3-CELLS	4-CELLS
Puerto Ricans (PART,MOB)										
(1,1)	.032	.029	--	.026	.029	--	.068	.029	--	.026
(0,1)	.030	.028	--	.031	.028	--	.067	.028	--	.031
MOB=1[a]	--	--	.150	--	--	.150	--	--	.170	--
(1,0)	.400	.400	.400	.423	.731	.700	.708	.399	.210	.221
(0,0)	.516	.542	.450	.511	.210	.156	.156	.544	.620	.722
IN LF/MOB=0	.426	.424	.420	.450	.776	.832	.819	.424	.300	.234
IN LF/MOB=1	.516	.508	--	.456	.519	--	.503	.519	--	.456
IN LF	.432	.429	--	.450	.804	--	.776	.429	--	.247
Non-Hispanics (PART,MOB)										
(1,1)	.061	.054	--	.075	.054	–	.134	.054	--	.075
(0,1)	.025	.025	--	.005	.025	–	.019	.024	--	.005

(table continues)

TABLE 10 (continued)

	Base				Simulations					
					X-Movers			B-Movers		
	Actual	Univariate Probits	3-CELLS	4-CELLS	Univariate Probits	3-CELLS	4-CELLS	Univariate Probits	3-CELLS	4-CELLS
MOB=1[a]	--	--	.210	--	--	.210	--	--	.200	--
(1,0)	.604	.582	.579	.579	.740	.670	.680	.587	.440	.555
(0,0)	.309	.337	.220	.339	.180	.110	.167	.331	.360	.363
IN LF/MOB=0	.610	.633	.721	.634	.804	.850	.875	.639	.578	.604
IN LF/MOB=1	.640	.683	--	.937	.683	--	.875	.692	--	.935
IN LF	.614	.636	--	.654	.794	--	.814	.641	--	.620

Source: Simulations by the author based on estimates from Tables 9 and 10 and data from the 5/100 PUMS, Sample A, and 1/10 and 1/100 extracts of the 5/100, 1980 U.S. Census of Population.

[a] Probability of the censored outcome in the switching (3-CELLS) probit model.

participation refers to the mean characteristics of nonmovers. To obtain B-Movers in the 3-CELLS model, the switching probit coefficients of labor force participation obtained when observations on nonmovers are censored are used.

In the univariate figures the joint probabilities are the multiplication of the univariate probit probabilities. The vector of coefficients of the mobility equation are those presented in Model II, Table 8, and the univariate probit results of Table 9.

The Base 4-CELLS figures (1,0) (0,0) use the mean characteristics of the whole sample, instead of the means of nonmovers, and the relevant switching coefficients, including the RHO terms. The joint probabilities (1,1) and (0,1) are obtained using the mean of the total sample and the switching coefficients of labor force participation and mobility when nonmovers are the censored observations. Thus, in the 4-CELLS columns, a joint probability is obtained for all outcomes. The X-Movers column for the 4-CELLS model is obtained using the mean characteristics of movers. The B-Movers column applies to nonmovers the labor force participation switching probit coefficients obtained when observations on nonmovers are censored.

The actual probability of labor force participation of Puerto Rican women given mobility status is .51 for movers and .42 for nonmovers. The corresponding base predictions are .51 and .42 respectively. The largest increase in labor force participation among nonmovers comes from giving them the personal characteristics of movers. If Puerto Rican nonmovers had the characteristics of movers, their labor force participation would increase to .70. The total labor force participation would almost double. All the simulated propensities when the vector of characteristics of movers are utilized are above the actual 40 percent.

Assigning non-Hispanic nonmovers the characteristics of movers also increases participation, but the increments are relatively small, from a base prediction of .60 to around a simulated .70. In

this case, too, all the predictions in Table 10 are consistent in that a higher labor force participation rate could be achieved if the mean person has the characteristics of the mean mover.

These results were expected from the large negative coefficient of MOVER in Table 9, which indicated that holding characteristics constant, nonmovers have a higher participation rate than movers.

If nonmovers decide to leave New York they will be exposed to the structure (i.e., coefficients) of movers. The effect of structures, that is, assigning to nonmovers the structure of movers, does not increase the labor force participation of either Puerto Ricans or non-Hispanics, and some of the predictions in Table 10 show declines. Puerto Ricans confront a larger penalty for changing location than non-Hispanics, as evidenced by the large decline in labor force participation from a base of .40 to a simulated .22.

Aside from personal characteristics, part of the higher participation of movers can also be attributed to self-selection but its contribution is small. The univariate probit that attributes to nonmovers the characteristics of movers predicts a labor force participation and nonmigration outcome probability for Puerto Ricans of .73; the 4-CELLS predicts .71, while the censored-corrected 3-CELLS model predicts a .70. For non-Hispanics the univariate probit that attributes to nonmovers the characteristics of movers predicts a joint outcome of .74; the 4-CELLS predicts .68 and the 3-CELLS .67.

V. SUMMARY AND CONCLUSIONS

The purpose of this paper has been to inquire about the determinants of mobility out of New York and to assess its consequences for the labor force participation of Puerto Rican women.

The initial locational endowment of Puerto Ricans was characterized as one with high welfare transfers, a dynamic low-skilled (low-paying) labor market, and strong cultural networks. A

theoretical framework, where individuals make choices about locations based on labor and nonlabor income, found support in estimates of the mobility equation for both Puerto Ricans and non-Hispanics. In essence, the transfer and wage attractiveness of a location are more important to Puerto Ricans than to non-Hispanics. Twice the size of the effect of wages, the migration-inhibiting effect of transfers on Puerto Rican women is not trivial. Also important to point out is that transfers affect all women uniformly. This reflects a widespread instability of earnings. Even if transfers are not currently received, they are perceived as potential resources in the event of income losses. Unemployed husbands, marital instability, temporary labor market withdrawal, and unemployment of women provoke income losses that can be offset by transfer income. The results show that transfers play a role in migration and nonmigration outcomes. Other research has found similar results for the population as a whole. This present research, however, by focusing on Puerto Ricans in New York, presents evidence of the large retaining effect of public transfers on low-income groups.

At the individual level, two other variables operate to retain Puerto Ricans in New York. Migration out of New York selects strongly in favor of married women. Since more than a quarter of all Puerto Rican women are heads of households, selection against heads tends to reduce the New York out-mobility rate. The high percentage of Puerto Rican women with prolonged labor market withdrawal contributes to their lack of responsiveness to economic conditions in their current location and hence creates migration inertia.

All the results presented in this paper show that the advantage of movers rests on being better endowed with characteristics that increase labor market activity. The model predicts lower labor force participation for movers than for nonmovers when personal attributes are kept constant. Nonmovers could actually be penalized for moving. These results also hold for non-Hispanics, although their rewards from characteristics as well as their penalty from changing locations are smaller.

Whether New York is a good or bad location for Puerto Ricans should be evaluated in terms of the attraction of other locations for low-skilled workers. After all, for a low-educated, low-skilled worker with limited earnings capacity, New York is an attractive location since it provides low-skilled labor opportunities and, in the case of nonwork, which is common among individuals with these characteristics, New York offers high welfare payments.

The claim that concentration in the Northeast can be held responsible for the poor socioeconomic performance of Puerto Ricans needs to be qualified. During the seventies increased levels of education allowed Puerto Ricans to move to higher-status occupations. The growing service sector and what might be downgraded manufacturing provided alternative sources of employment for less-skilled Puerto Rican women. A larger proportion of Puerto Rican women in New York were in the labor force in 1970 than in 1980. The low labor market activity of Puerto Rican women cannot explain the economic deterioration of Puerto Ricans in New York since 1970. Explanations must be found in the general worsening of wages of low-skilled workers and in the economic vulnerability of Puerto Rican men.

The lower labor force participation of Puerto Rican women in comparison to non-Hispanics comes primarily from factors related to household composition. This is the most important qualitative difference between the labor force activity of Puerto Rican and non-Hispanic women. This is especially significant since the results show that Puerto Rican women are actually more sensitive than other women to monetary gains of market work. However, a large percentage of the Puerto Rican women in New York has been out of the labor force for more than five years. Job availability is not enough to motivate market participation as long as women cannot make arrangements inside the household to accommodate market work and as long as women are untrained for market participation due to their prolonged withdrawal.

Notes

[1] See Blank (1988) who also arrives at this conclusion.

[2] A similar technique is used by Connelly (1990) to estimate the relationship between AFDC participation and labor force participation.

[3] Results of the wage and wage participation equations by location for Puerto Ricans and non-Hispanics are available from the author upon request.

[4] The weights can also be rationalized as a score of the desirability of locations according to the amount of relatives and friends.

[5] Identification in this model is achieved by excluding the retaining effect of relatives and friends, summarized by the nativity variable, from the labor force participation decision. Nativity, whether mainland or Island born, is often insignificant in labor force participation equations of Puerto Rican women (see for example, Reimers, 1985; Bean and Tienda, 1987; Enchautegui, forthcoming).

[6] Deleting FLUENT from the equation produced similar results.

[7] Reduced-form switching models were also estimated. The correlation term was -.07 for Puerto Rican nonmovers and .24 for movers, both of them statistically insignificant. The coefficients were largely unstable. This specification did not converge for non-Hispanics.

[8] This pattern can also be found in the results presented in Bean and Tienda (1987) and Reimers (1985), but it has been overlooked in their discussions.

References

Antel, J. 1980. Returns to Migration: Literature and Critique. The RAND Corporation, N-1480-NICHD, Santa Monica, California.

Ashford, J.R. and R. R. Sowden. 1970. "M 53 bit Analysis." Biometrics 26:535-546.

Beale, Calvin L. 1977. "The Recent Shift of the United States Population to Nonmetropolitan Areas, 1970-1975." International Regional Science Review 2(Winter):113-122.

Bartel, Ann P. 1987. "Internal Migration of U.S. Immigrants." Conference on Immigration, Trade, and Labor. Cambridge: NBER.

Bartel, Ann P. 1989. "Where Do the New U.S. Immigrants Live?" Journal of Labor Economics 7(4):371-391.

Bean, Frank D. and Marta Tienda. 1987. The Hispanic Population of the United States. New York: Russell Sage.

Blank, Rebecca M. 1988. "The Effect of Welfare and Wage Levels on the Location Decisions of Female-Headed Households." Journal of Urban Economics 24:186-211.

Blau, Francine and Marianne A. Farber. 1986. The Economics of Women, Men, and Work. Englewood Cliffs, New Jersey: Prentice Hall.

Chiswick, Barry R. 1977. "A Longitudinal Analysis of the Occupational Mobility of Immigrants." Industrial Relations Research Association Series, Proceedings of the 13th Annual Winter Meeting, New York.

Clark, Rebecca L. 1989. "Welfare and the Out-Migration of Solo Mothers." Office of Population Research, Princeton, New Jersey.

Connelly, Rachel. 1990. "The Effect of Child Care Costs on the Labor Force Participation and AFDC Recipiency of Single Mothers." Institute for Research on Poverty, Discussion Paper 920-90, University of Wisconsin-Madison.

DaVanzo, Julie and James R. Hosek. 1981. "Does Migration Increase Wage Rates?--An Analysis of Alternative Techniques For Measuring Wage Gains to Migration." Rand Note #N-1582-NICHD, Santa Monica, California: RAND Corporation.

Dubin, J.A. and D. Rivers. 1990. "Selectivity Bias in Linear Regression, Logit and Probit Models." Sociological Methods and Research 18(2-3):360-390.

Enchautegui, María E. (forthcoming). "Geographical Differentials in the Socioeconomic Status of Puerto Ricans: Human Capital Variations and Labor Market Characteristics." International Migration Review.

Fernandez-Kelly, M. Patricia and Anna M. Garcia. (forthcoming). "Power Surrendered, Power Restored: The Politics of Home and Work Among Hispanic Women in Southern California and Southern Florida." In Louise Tilly and Patricia Gurin, eds., Women and Politics in America. New York: Russell Sage Foundation.

Fernandez-Kelly, M. Patricia and Anna M. Garcia. 1989. "Economic Restructuring in the United States: Hispanic Women in the Garment and Electronic Industries". In B.A. Gutek, et al., eds., Women and Work, An Annual Review. Vol. 3. Newbury Park, California: Sage Publications.

Gramlich, E. and D. S. Loren. 1984. "Migration and Income Redistribution Responsibilities." Journal of Human Resources 19(4):489-511.

Gray, Lois S. 1975. "The Jobs Puerto Ricans Hold in New York City." Monthly Labor Review 98(10):12-16.

Greene, William H. 1990. Econometric Analysis. New York: Macmillan Publishing Co.

Heckman, J. 1978. "Dummy Endogenous Variables in a Simultaneous Equation System." Econometrica 46:931-959.

Heckman, J. 1979. "Sample Selection Bias as a Specification Error." Econometrica 47:153-161.

Hunt, C. and James B. Kau. 1985. "Migration and Wage Growth: A Human Capital Approach." Southern Economic Journal 51(3):693-709.

Kasarda, J.D. 1988. "Jobs, Migration , and Emerging Urban Mismatches." In M.G. McGeary and L.E. Lynn, Jr., eds., Urban Change and Poverty. Washington, D.C.: National Academy Press.

Kasarda, J. D. 1989. "Urban Industrial Transition and the Underclass." In W.J. Wilson, ed., The Ghetto Underclass: Social Perspectives, Special Issue of The Annals of the American Academy of Political and Social Science, Vol. 501.

Lichter, Daniel T. 1980. "Household Migration and the Labor Market Position of Married Women." Social Science Research 9(March):83-97.

Lichter, Daniel T. 1983. "Socioeconomic Returns to Migration Among Married Women." Social Forces 62:487-503.

Long, Larry H. 1975. "Women's Labor Force Participation and the Residential Mobility of Families." Social Forces 52:342-348.

McCarthy, K.F. and Peter A. Morrison. 1977. "The Changing Demographic and Economic Structure of Non-Metropolitan Areas in the U.S." International Regional Science Review 2(Winter):123-142.

Maldonado, Edwin. 1979. "Contract Labor and the Origins of Puerto Rican Communities in the United States." International Migration Review 13:103-121.

Marshall, Adriana. 1987. "New Immigrants in New York's Economy." In Nancy Forner, ed., New Immigrants in New York. New York: Columbia University Press.

Mills, C. Wright, C. Senior, and Rose H. Goldsen. 1950. The Puerto Rican Journey: New York's Newest Migrants. New York: Harper & Brothers Publishers.

Morrison, Donna R. and Daniel T. Lichter. 1988. "Family Migration and Female Employment: The Problem of Underemployment Among Migrant Married Women." Journal of Marriage and Family 50 (February):161-172.

Nakosteen, R.A. and M. Zimmer. 1980. "Migration and Income: The Question of Self-Selection." Southern Journal of Economics 46:840-851.

Pedraza-Bailey, Sylvia (forthcoming). "Women and Migration: The Social Consequences of Gender." Annual Review of Sociology.

Peterson, Paul E. and Mark C. Rom. 1990. Welfare Magnets: A New Case for a National Standard. Washington, D.C.: Brookings Institution.

Polachek, Solomon and Francis W. Horvath. 1977. " A Life Cycle Approach to Migration: An Analysis of the Perspicacious Peregrinator." In R. Ehrenberg, ed., Research in Population Economics, pgs. 116-151. Greenwich, Connecticut: JAI Press.

Reimers, Cordelia. 1985. "A Comparative Analysis of the Wages of Hispanics, Blacks, and Non-Hispanic Whites." In G. Borjas and M. Tienda, eds., Hispanics in the U.S. Economy: Orlando: Academic Press.

Richter, Kerry. 1985. "Nonmetropolitan Growth in the Late 1970's: The End of the Turnaround?" Demography 22 (May):245-263.

Sandell, S. H. 1977. "Women and the Economics of Family Migration." Review of Economics and Statistics 59(4):406-414.

Sassen-Koob, Saskia. 1985a. "Capital Mobility and Labor Migration: Their Expression in Core Cities." In M. Timberlake, ed., Urbanization in the World Economy. Orlando: Academic Press.

Sassen-Koob, Saskia. 1985b. "Changing Composition and Labor Market Location of Hispanic Immigrants in New York City, 1960-1980." In G. Borjas and M. Tienda, eds., Hispanics in the U.S. Economy. Orlando: Academic Press.

Smith, J.P. and Finnis R. Welch. 1989. "Black Progress After Myrdal." Journal of Economic Literature 27(June):519-562.

Tienda, Marta and J. Glass. 1985. "Household Structure and Labor Force Participation." Demography 22(3):381-394.

Tienda, Marta and Ding-Tzann Lii. 1987. "Minority Concentration and Earnings Inequality: Blacks, Hispanics, and Asians Compared." American Journal of Sociology 93(July):141-165.

Tienda, Marta and Elaine L. Fielding. 1987. "Migration, Preferential Worker Status, and Employment: Divergent Paths of Hispanic Market Insertion in the United States." Institute for Research on Poverty, Discussion Paper 837-87, University of Wisconsin-Madison.

Tienda, Marta and F. D. Wilson. 1989. "Ethnicity, Migration and Income." Population Research Center, Discussion Paper 89-2, NORC/University of Chicago.

Tunali, Insan. 1986. "A General Structure for Models of Double Selection and an Application to a Joint Migration/Earnings Process with Remigration." In R.G. Ehrenberg, ed., Research in Labor Economics. Greenwich, Connecticut: JAI Press.

Wynand, P. and W. Bernard. 1981. "The Demand for Deductibles in Private Health Insurance."