

Distinctions in the Economic Integration of Puerto Rican Women in New York's Metropolitan Statistical Area

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Introduction

Scholars studying Puerto Rican integration into the United States economy have noted the lag of progress in their economic incorporation when compared to other migrant groups (Borgas-Mendez 1993; Morales 1986; Padilla 1986; Padilla 1993; Rivera-Batiz and Santiago 1994; Rivera-Batiz and Santiago 1996; Sanchez Korral 1983; Santiago 1992; Santiago and Galster 1995; Tienda; Torres 1995). The theoretical explanations for this growing gap are extensive and fluctuating. This work is a discussion of how these differences are manifesting for Puerto Ricans women in New York's Metropolitan Area, from the 1970s through the 1980s, using the Integrated Public Use Microdata Sample (IPUMS) for 1980 and 1990. Specifically, I will comment on the distinctions that exist for Puerto Rican women and men and how they are absorbed into the labor market of New York.

It is important to make the distinction between men and women because the labor market is a structurally gendered sphere. A gendered approach is important when looking at the Puerto Rican community where women endured a significant loss in labor force participation during the 1970s (Cooney and Colon 1996; Ortiz 1996). New York's drastic loss of manufacturing after World War II, particularly the fall off in the garment industry was very detrimental to Puerto Rican women who seemed to be caught unprepared for the economic transformation that occurred (Ortiz 1996; Torres and Bonilla 1993). During the 1960s Puerto Rican women's labor force participation rate dropped from 60 percent to well below 30 percent when the 1970s United States Census was taken (Ortiz 1996). This was one of the most dramatic drops in labor force participation due to structural factors for any ethnic or gender group since the great depression. In addition, high poverty rates, growing single female head-of-household rates, and lack of inclusion into the greater economy have placed Puerto Ricans at the extreme opposite end of most successful ethnic groups.

Theoretical Frames

According to various authors, Puerto Ricans in general have been unable to take advantage of many of the same opportunities than other previous and recent migrant groups have (Massey, 1984; Massey, 1985; Glazer, 1963; Model, 1993). Santiago (1994) has argued that Puerto Ricans form part of the secondary labor market, and according to Portes and Bach, the secondary labor market provides circumscribed mobility. Therefore, if Santiago (1994) is correct, Puerto Ricans are therefore entangled in a labor sector where there are little opportunities for upward mobility.

Alternative studies have suggested that a shift in traditional niches may have occurred for Puerto Ricans as New York underwent the economic restructuring that transformed it from a manufacturing dominated economy to service oriented economy after World War II (Logan,

Alba, and McNulty 1994). The ethnic niche thesis claims that successful integration occurs through a pattern of successions between ethnic groups within specific industrial niches. The study conducted by Logan et. al. (1994), provides some evidence for the existence of ethnic niches for Puerto Ricans, in major U.S. Metropolitan Areas. The precipitous drop of Puerto Rican woman labor force participation rate during the 1960s dramatizes the impact of the loss of an ethnic group's niche can have on a group. This is particularly true if the group is highly dependent on the niche, as Puerto Rican women were in the apparel and textile industries prior to New York city's industrial re-structuralization.

Model (1993) has hypothesized a different explanation for the way that Puerto Ricans adjusted to New York City's economic transformation. Her argument suggests that Puerto Ricans as well as African Americans, took advantage of the Civil Rights Movement and Affirmative Action policies which opened up doors to better paying occupations in government agencies. Consequently, African Americans and Puerto Ricans have become part of new governmental niches. These new niches, unlike those in the private labor market, stomp the opportunity for greater economic mobility for the ethnic group as whole. Occupations in government, unlike *word of mouth* employment (which are opportunities received through networks and occurs mostly in the private sector), involves qualifying examinations and minimal standards in language and education. These measures interrupt the traditional *word of mouth* approach usually fostered by newly arrived ethnic groups. Puerto Rican women, after their decline in labor force participation, were in a position to take advantage of the niches described by Model. The decline of the garment industry coincided with the opening of opportunities in the growing government sectors. Puerto Rican women who were able to take advantage of these alternative employment sectors may have exploited this opportunity. The 1980 and 1990 Census suggests that such an event may have occurred, as Puerto Rican women had a greater percentage of government class of workers than men.

The Secondary Labor Market

The secondary labor market evolved from the dual labor market argument first established by Bonacich (1973), coined as the "Split labor market" thesis. The first tier of this split economy revolves around the upper white collar and upper service oriented jobs, referred to as the primary labor market. These occupations are typically filled by highly educated individuals who expect incentives, rewards, and benefits from their employers (Dickens 1985). The secondary labor market revolves around the lower level service and laborer jobs. The secondary labor market has no guaranteed job security or upward mobility. Workers in this tier are motivated by threat of job loss or pay loss. Workers are treated harshly and job turnover rates are high.

To be a part of the secondary labor market, Portes and Bach (1985) have identified two basic criteria. First, ethnic groups must be overly represented in industries and occupations in the secondary economy. Second, the migration of the ethnic group should be recent. Unlike the ethnic niche model, there should be no evidence of dispersion or mobility within the labor market for ethnic groups that form part of the secondary labor tier alone.

Ethnic niches

Ethnic niches describe the process of adaptation and incorporation ethnic groups go through in the United States. The basic premise behind this thesis is succession. New ethnic groups move into specific occupational niches, which older ethnic groups previously occupied and have moved up and out of. Eventually the newer ethnic groups will occupy the supervisory

positions within these industries, allowing for more co-ethnic employment as well as further mobility for those who supervise (Logan, et. al., 1994; Waldinger, 1996).

Occupational niches occur when an ethnic group is overly represented in a specific industry. According to Model (1993), a group is over represented in an area when the ratio of the ethnic group in the occupation is one-and-a-half times that of the overall labor force in that occupation. Logan et. al. (March 1994) uses an odds ratio of over representation to determine the presence of an ethnic niche. The article allows for the control of an extreme number of cases. The latter will be used in the upcoming analysis and is discussed ahead (See Figure 1 for formulas).

These niches become apparent when the over-representation of the ethnic group occurs in industries that do not support each other. When an ethnic niche is compared to the secondary labor market theory, specific ethnic niches should not be concentrated solely within the lower occupational tiers in an industry. In other words, there should be some distribution among the occupational levels within the ethnic niche industries.

Another trait of ethnic niches is the dispersion of older ethnic groups into the greater labor force economy. For example, as ethnic groups become more acculturated to the United States labor force and gain more human capital, there should be some evidence of decline in the use of occupational ethnic niches. According to Logan, et. al. (1999), this should also show in the second generations distribution throughout the economy. For example, as the second generation becomes more acculturated than their parents to the United States, they should be more dispersed within the labor market than those who are first generation. If Puerto Ricans were to follow this model, we would see a decrease in ethnic niche participation among second or greater generations.

It must be made clear at this point that although the ethnic incorporation models have been described independently, they are not mutually exclusive. All could exist simultaneously, or they may be at different points of development. What would be made clearer with this analysis, particularly by looking at 1980 and 1990, is the possible direction in which Puerto Ricans are becoming incorporated. It is important to remember that these approaches' greatest weaknesses have been the absence of a gendered perspective. This study is an attempt at adding to the growing body of literature on this subject.

Data and Methods

For this analysis the 1980 and 1990 5 percent Integrated Public Use Microdata Sample will be used (Ruggles, Sobek, and al. 1997). The data set provides the opportunity to easily compare both 1980 and 1990 census data. The sample was collected for the New York City 1980 and 1990 Metropolitan Statistical Area. Metropolitan definitions change over time, but between 1980 and 1990 the New York City was consistent. The sample included all non-institutionalized residents ages 18 to 61. Also included in the sample are those who were actively involved in the labor force. Most scholars have used the age criteria of 25 through 65 years of age to define active labor force participation (Logan, et. al. 1994; Waldinger, 1996). Upon reviewing the labor force participation of Puerto Ricans, it is seen that they entered the labor force in greater numbers at age 18, and left the labor force at the age of 62 (Table 1 has all the descriptive statistics for the sample and the New York City Metropolitan Statistical Area).

The analysis will compare Puerto Rican women and men born in the United States and Puerto Rico. Due to the existing evidence that Puerto Rican men and women are heavily

concentrated in separate industries, ethnic niches will be viewed through a gendered perspective as well (see appendix 1 and 2).

To analyze the question properly the over-representation odds ratio will be used. This technique takes the representation of the target ethnic group, divides it by all the labor participants in the industry category (in this case the target ethnic group is, self employed, wage worker or government worker). The product is then divided by the ratio of the frequency of all labor force participants in the target ethnic group and the frequency of all participants in the labor force (using self employed workers, wage workers, and government workers). The odds ratio controls for the extreme number of cases in the subgroups studied. Over representation is indicated when the result of the odd ratio is equal to or greater than one and a half (1.5) (Logan et al March 1994) (See figure 1).

In order to determine if an ethnic niche truly exists, occupation level will be regressed along with other structural and demographic characteristics using a logistic regression. The logistic regression model should provide some of the characteristics of Ethnic Niche participators. The model for the logistic regression goes as follows:

$$Ethnicniche = B_0 + B_1(Age) + B(Age)^2$$

the results of the model and the variables included are in Table 4 and Table 5.

A multiple regression analysis was also conducted on income earned for men and women in the sample. The purpose of this regression is to determine if belonging to an ethnic niche provides greater monetary reward. The model for the Multiple regression is as follows:

$$E(y) = a + bx_1 + bx_2^2 + bx_3 \dots$$

The results and the list of included variables are found in Table 6 and Table 7.

Research

Descriptive statistics for Puerto Ricans in the labor force in 1980 and 1990 by gender can be found in Table 1. It is important to note the increases of labor force participation by women, particularly Puerto Rican women who are born on the island. Puerto Rican women have also increased their mean education over men for those born in the United States and in Puerto Rico. This increase occurred during the time when Puerto Rican women had their lowest rate of participation in the labor force. Puerto Rican women have also increased their percentages in the professional, managerial, and service areas, comparatively to men (See appendix 3). Yet, these increases in mean education and mobility into the professional occupation sectors have failed to yield meaningful increases in wages.

Table 2 and Table 3 show the areas where Puerto Rican women and Puerto Rican men form possible ethnic niches by gender and type of worker for 1980 and 1990, respectively. The first notable observation is the overall decrease of niches for both women and men from the 1980 census to 1990. Second, men have a greater range of industrial niches than women have for 1980 and 1990. Finally, as suggested by Model's hypothesis, most of the niches are overwhelmingly located in governmental sectors. Occupations in government seem to be extremely important for Puerto Ricans in New York City. Government sector niches are particularly important to women, who have a higher number of niches in this sector. Men are split almost evenly between the wage employment niches and governmental niches, an indication of the greater opportunities afforded to men when compared to women.

The distribution among ranked occupation is also significant for identifying an ethnic niche. According to Portes and Bach (1994), Waldinger (1996), Model (1993), and Logan, et. al. (1994), an ethnic niche should provide some mobility within the industrial sector. If the mobility is negligible, there would be evidence of a greater concentration of workers within an industry than would at the lower sectors of the occupational scale. According to the logistic regression on table 4, women had a decrease likelihood of being in an ethnic niche as age and education increase, and if they belonged to service, sales, technical, managerial, and the operators occupations (Table 4). The positive coefficients in the model indicating a greater likelihood of participation in an ethnic niche for marital status and class of worker. The strongest indicate in the model for niche participation was government employee, and this held true for both women and men (Table 5).

The logistic regression models strongly suggest a dual labor market for Puerto Rican women and men, as well as for some differentiable opportunities in their labor market entry. Women's greater opportunities are locked in governmental niches, where the *word of mouth* employment opportunities are least available. Men have the greater opportunities to enter niches in government as well, but the wage market can still provide niche opportunities while it is limited to women.

According to the multiple regression model, ethnic niche was only positively significant in raising income for women in 1980, and not significant in 1990. For men belonging to an ethnic niche in 1980 it indicated a significant loss in income earned. But the reverse occurs in 1990, where Puerto Rican men who belong to an ethnic niche had an average increase in their income of \$802.00 a month. Although the multiple regression models are exploratory, they do provide information on the economic rewards for men and the lack for women who are participants of ethnic niches.

Conclusion

The information in this study provides clear examples of Puerto Ricans' continued participation in some secondary sector markets, ethnic niche markets, and government sector markets. These differences are greatly varied by gender and so are the opportunities. Men have a wider range of choices within wage (private) and government sectors. Women, on the other hand, have less opportunities for participating in their gender specific niches. This study's main weakness is the lack of indirect comparison between men and women participation in ethnic niches for those niches where Puerto Ricans as a whole participate in. This neglect may hide important networks that may include gender neutral occupations. The historical segregation of employment locations and the continual segregation of occupations by gender predicates the need for this gender specific study.

Ethnic niches are seen to be the way in which many ethnic groups gain success in the United States. The evidence shows clearly that for Puerto Ricans there was a greater likelihood of belonging to an ethnic niche or the secondary labor market than being self-employed. There still needs to be a more comprehensive analysis on how these niches operate with ethnic networks and the progress from the secondary labor market to an ethnic niche. Particularly, there is a clear indication for the need of looking at industrial concentrations of ethnic groups by gender as well. In order to provide a true understanding of this process, future studies on ethnic integration should must include a gendered perspective.

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Figure 1: Odds Ratio calculations

Industrial areas of interest

- f₁ Puerto Rican Owners
- f₂ All Other Owners
- f₃ Puerto Rican Workers
- f₄ All Other Workers
- f₅ Puerto Rican Government Employees
- f₆ All Other Government Employees
- f₇ All Puerto Ricans in the Labor Force
- f₈ All Others in the Labor Force

$$\frac{\left(\frac{f_1}{f_2}\right)}{\left(\frac{[f_7 - f_1]}{[f_8 - f_2]}\right)} \quad \text{Odds Ratio for Owner over-representation}$$

$$\frac{\left(\frac{f_3}{f_4}\right)}{\left(\frac{[f_7 - f_3]}{[f_8 - f_4]}\right)} \quad \text{Odds Ratio for worker over-representation}$$

$$\frac{\left(\frac{f_5}{f_6}\right)}{\left(\frac{[f_7 - f_5]}{[f_8 - f_6]}\right)} \quad \text{Odds Ratio for Government over-representation}$$

Table 1: Descriptive Statistics for Puerto Ricans in NY MSA 1980 and 1990

Descriptives Statistics for Puerto Ricans in NY MSA 1980			
1980		Born in the U.S.	
Labor Force Participation		Males	Females
Yes		83.00%	60%
No		17.00%	40%
		Born in Puerto Rico	
Labor Force Participation		Males	Females
Yes		73.90%	38%
No		26.10%	62%
NY MSA descriptive for all Puerto Ricans in the Labor Force			
		Born in the U.S.	
		Males	Females
Median Income		\$13,005	\$8,845
Mean Age		39.76	39.09
Mean Education		12.82	12.74
		Born in Puerto Rico	
		Males	Females
Median Income		\$9,596	\$6,395
Mean Age		35.56	35
Mean Education		10.42	10.99
Descriptive Statistics for Puerto Ricans in NY MSA 1990			
		Born in the U.S.	
Labor Force Participation		Males	Females
Yes		87.10%	71%
No		12.90%	29%
		Born in Puerto Rico	
Labor Force Participation		Males	Females
Yes		87.70%	66%
No		12.30%	34%
NY MSA descriptive for all Puerto Ricans in the Labor Force			
		Born in the U.S.	
		Males	Females
Median Income		\$18,000	\$14,000
Mean Age		37.85	37.35
Mean Education		12.37	12.47
		Born in Puerto Rico	
		Males	Females
Median Income		\$15,600	\$12,974
Mean Age		34.89	34.5
Mean Education		11.61	12.17

Table 2: Identified Ethnic Niches for Females in New York MSA

	Females in 1980			Females in 1990		
	Own	Wage	Gov't	Own	Wage	Gov't
Agriculture		1				
Forestry and Fisheries						
Mining						
Construction		1				
Food and Kindred products			1			
Textile mill products		1	1		1	
Apparel and other finished textile products			1		1	1
Paper and allied products						
Printing, publishing, and allied industries			1			
Chemicals/ allied products			1			1
Petroleum/ coal products						
Other Durables			1			
Lumber and wood products, furniture and fixtures						
Primary metal industries						
Fabricated metal products						
Machinery, except electrical						
Electrical machinery, except electrical			1			
Motor vehicles and equipment						
Other transportation equipment						
Miscellaneous manufacturing		1				
Not specified manufacturing						1
Railroads			1			
Other transportation			1			
Trucking service, warehousing and storage	1					
Communication		1				1
Utilities/ sanitary services		1				
Wholesale						1
Other retail			1			1
General merchandise stores						
Grocery/ dairy stores, retail bakeries			1			
Motor vehicle dealers/ gas station						
Eating and drinking places			1			
Banking/ credit services			1			
Finance, insurance, and real estate			1			1
Business service		1	1			1
Repair service	1					
Other personal services			1		1	
Entertainment and recreation services		1	1		1	
Health services, except hospitals			1			
Hospitals						1
Other non-durable						
Elementary/ secondary school			1			
Colleges and universities			1			
Other educational services						1
Social services, religious and membership organization						1
legal engineering and other professional services			1			1
Total Ethnic Niches	2	8	21	0	4	12

Table 3: Identified Ethnic Niches for Males in New York MSA

	Males in 1980			Males in 1990		
	<u>own</u>	<u>Wage</u>	<u>Gov't</u>	<u>own</u>	<u>Wage</u>	<u>Gov't</u>
Agriculture						
Forestry and Fisheries						
Mining		1				
Construction						
Food and Kindred products						1
Textile mill products	1		1	1		
Apparel and other finished textile products	1		1	1		
Paper and allied products			1	1		
Printing, publishing, and allied industries	1		1	1		1
Chemicals/ allied products			1			
Petroleum/ coal products						
Other Durables	1		1	1		
Lumber and wood products, furniture and fixtures	1		1	1		1
Primary metal industries			1			
Fabricated metal products	1					
Machinery, except electrical	1					
Electrical machinery, except electrical	1					
Motor vehicles and equipment			1			
Other transportation equipment			1			1
Miscellaneous manufacturing	1		1	1		
Not specified manufacturing			1			1
Railroads						
Other transportation				1		1
Trucking service, warehousing and storage	1					1
Communication						
Utilities/ sanitary services	1					
Wholesale	1		1	1		1
Other retail	1		1	1		1
General merchandise stores	1					
Grocery/ dairy stores, retail bakeries			1	1		
Motor vehicle dealers/ gas station			1	1		
Eating and drinking places	1		1	1		1
Banking/ credit services			1	1		1
Finance, insurance, and real estate			1	1		1
Business service	1		1	1		1
Repair service	1					
Other personal services	1			1		1
Entertainment and recreation services	1		1	1		1
Health services, except hospitals	1		1	1		1
Hospitals						
Other non-durable			1			
Elementary/ secondary school						
Colleges and universities						
Other educational services			1			1
Social services, religious and membership organization						
legal engineering and other professional services			1			1
Total Ethnic Niches	0	21	25	0	19	18

Table 4: Logistic Regression on Ethnic Niches for Puerto Rican Females in New York MSA

	1980 B (Odds Ratio)		1990 B (Odds Ratio)	
Constant	-1.7185		-1.2164	
Age	0.067 (1.07)	*	0.0005	
Age2	-0.9675		-0.9999	
Education	-0.0326 (0.97)	**	-0.0617 (0.94)	***
English Ability (Well) Not Well	0.173		-0.1573	
Birthplace (United States) Puerto Rico	-0.1569		0.1436	
Marital Status (Married, spouse present) Married, spouse absent	0.4852		0.069	
Separated	0.3274 (1.39)	*	-0.0848	
Divorced	-0.0344		0.0497	
Widowed	-0.3907		0.3062	
Never married/single	0.2416 (1.27)	**	-0.0261	
Class of Worker (Self-employed) wage worker	0.3814		1.6527 (5.22)	*
Government employed	3.4586 (31.77)	***	4.7565 (116.34)	***
Occupation (Professional) Managerial	-0.513 (0.59)	*	-1.3695 (0.25)	***
Technical	-0.8166 (0.44)	*	-0.4097	
Sales	-0.9942 (0.37)	***	-0.3844	
Administrative Support	0.074		-0.5861 (0.56)	***
Service	-1.0506 (0.35)	***	-3.218	
Farming, Forestry, and Fishing	1.9066		0.1363	
Precision Production, Craft, And Repair	0.0615		0.1461	
Operators, Fabricators, and Laborers	-0.5632 (0.57)	*	1.4071 (4.08)	***
	-2 Log Likelihood		3819	
	X2 (df)	1614.627 (20.00)	14408.779 (20.00)	
	Cox & Snell - R2	0.275	0.242	
	N	4477	4611	

*P<.05 **P.<.01 ***P<.001

Table 5: Logistic Regression on Ethnic Niches for Puerto Rican Males in New York MSA

	1980		1990	
	B		B	
	(Odds Ratio)		(Odds Ratio)	
Constant	2.2301		-2.3179	
Age	-0.033 *		-0.0118	
	(0.97)			
Age2	0.0003		0.0001	
Education	-0.0272 **		-0.026 *	
	(0.97)		(0.97)	
English Ability (Well)				
Not Well	1.335		-0.2828 **	
			(0.75)	
Birthplace (United States)				
Puerto Rico	0.0535		-0.0778	
Marital Status (Married, spouse present)				
Married, spouse absent	-0.0479		0.069	
Separated	0.149		-0.0848	
Divorced	0.1423		0.0497	
Widowed	0.252		0.3062	
Never married/single	0.2316 ***		-0.0261	
	(1.26)			
Class of Worker (Self-employed)				
wage worker	5.8653 ***		9.4585 **	
	(352.58)		(12816.34)	
Government employed	5.4372 ***		9.6415 **	
	(229.81)		(15390.80)	
Occupation (Professional)				
Managerial	-0.513 ***		-1.589 ***	
	(0.60)		(0.20)	
Technical	-0.1175		-1.1011 ***	
			(0.33)	
Sales	0.2905 *		1.9493 ***	
	(1.34)		(7.20)	
Administrative Support	0.0887		-0.1402	
Service	0.3265 ***		0.0071	
	(1.39)			
Farming, Forestry, and Fishing	0.3203		-2.0252 ***	
			(0.13)	
Precision Production, Craft, And Repair	1.0346 ***		-1.2302 ***	
	(2.81)		(0.29)	
Operators, Fabricators, and Laborers	0.6545 ***		-0.6679 ***	
	(1.92)		(0.51)	
	-2 Log Likelihood	9503.718	7293.363	
	X2 (df)	892.223 (20.00)	1208.061 (20.00)	
	Cox & Snell - R2	0.111	0.176	
	N	6961	5730	

*P<.05 **P<.01 ***P<.001

Table 6: Multiple Regression of income earned for Puerto Rican Females in the New York MSA

	1980		1990	
	B		B	
	(SE)		(SE)	
Age	-4356.9	***	-18735.22	***
	644.2		1276.3	
	(48.69)		(108.87)	
Age2	-6.58	***	-13.19	***
	(0.62)		(1.38)	
Education	243.38	***	1095.73	***
	(29.87)		(69.81)	
English Ability (Well)				
Not Well	-558.71	*	-1597.35	*
	(236.61)		(618.56)	
Birthplace (United States)				
Puerto Rico	-1605.58		-1768.6	***
	(182.55)		(386.67)	
Marital Status (Married, spouse present)				
Married, spouse absent	-906.56		-1048.93	
	(507.54)		(1037.05)	
Separated	135.1		-889.01	
	(256.29)		(616.16)	
Divorced	569.76	*	719.94	
	(232.09)		(509.23)	
Widowed	-59.56		766.58	
	(419.07)		(990.34)	
Never married/single	589.1	**	-68.29	
	(192.02)		(431.93)	
Ethnic Niche (no)				
Yes	629.1	**	387.56	
	(213.95)		(477.81)	
Class of Worker (Self-employed)				
wage worker	82.82		1901.59	
	(692.97)		(167.93)	
Government employed	-622.27		1619	
	(648.86)		(1231.80)	
Occupation (Professional)				
Managerial	-1180.15	**	-1520.77	*
	(431.20)		(735.25)	
Technical	-726.83		-3581.09	***
	(612.06)		(1024.29)	
Sales	-4920.87	**	-7792.64	***
	(438.44)		(774.29)	
Administrative Support	-2729.86	***	-4981.15	***
	(362.51)		(591.71)	
Service	-4719.14	***	-8232.49	***
	(404.68)		(691.38)	
Farming, Forestry, and Fishing	-2121.7		-10533.92	
	(3429.23)		(5592.86)	
Precision Production, Craft, And Repair	-4527.6	***	-5267.26	***
	(520.67)		(1289.82)	
Operators, Fabricators, and Laborers	10731966	***	-8943.32	***
	(399.69)		(811.17)	
	Adjusted R2	0.201	0.229	
	N	4477	4611	

*P<.05 **P.<.01 ***P<.001

Table 7: Multiple Regression of income earned for Puerto Rican Males in the New York MSA

	1980		1990	
	B		B	
	(SE)		(SE)	
Age	-6551.43		-9371.14	
	823.72 ***		1569.16 ***	
	(52.51)		(111.41)	
Age2	-8.6 ***		-16.04 ***	
	(0.67)		(1.41)	
Education	444.43 ***		967.42 ***	
	(28.77)		(64.56)	
English Ability (Well)				
Not Well	-730.12 **		-1162.1 *	
	(230.75)		(577.22)	
Birthplace (United States)				
Puerto Rico	-739.08 ***		-2921.32 ***	
	(198.84)		(408.88)	
Marital Status (Married, spouse present)				
Married, spouse absent	-2222.4 ***		-5782.25 ***	
	(520.47)		(888.29)	
Separated	-1553.58 ***		-5994.24 ***	
	(341.40)		(749.96)	
Divorced	-951.8 **		-4843.41 ***	
	(323.91)		(660.55)	
Widowed	-632.04		-5878.82 *	
	(889.03)		(2345.24)	
Never married/single	-2470.12 ***		-6249.23 ***	
	(203.26)		(441.31)	
Ethnic Niche (no)				
Yes	-819.25 ***		802.85 *	
	(161.41)		(376.38)	
Class of Worker (Self-employed)				
wage worker	-1418.15 ***		-4211.44 ***	
	(426.65)		(881.29)	
Government employed	-93.5		180.9	
	(459.24)		(957.08)	
Occupation (Professional)				
Managerial	-56.28		-4074.9	
	(473.25)		(988.75)	
Technical	471.99		-3876.02 **	
	(693.16)		(1238.13)	
Sales	-1142.86 **		-6135.15 ***	
	(417.15)		(859.69)	
Administrative Support	-1747.3 ***		-8344.74 ***	
	(350.62)		(758.85)	
Service	-2508.66 ***		-7570.97 ***	
	(336.18)		(721.50)	
Farming, Forestry, and Fishing	-3484.52 ***		-9027.49 ***	
	(929.89)		(2306.64)	
Precision Production, Craft, And Repair	-498.93		-4998.03 ***	
	(352.55)		(774.31)	
Operators, Fabricators, and Laborers	-2383.36 ***		-8014.15 ***	
	(328.76)		(720.28)	
	Adjusted R2	0.196	0.241	
	N	6961	5730	

*P<.05 **P.<.01 ***P<.001

Appendix 2: Percentages in New York's MSA by Gender

	<u>1980</u>			
	<u>New York Total</u>		<u>Puerto Ricans in New York</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
Agriculture	0.2	0.1	0.1	0.2
Forestry and Fisheries	0.2	0	0.2	0
Mining	0.1	0.1	0	0
Construction	5.5	0.6	3.9	0.5
Food and Kindred products	1	0.5	1.2	0.7
Textile mill products	0.7	1	1.1	2
Apparel and other finished textile products	2.2	6.4	3.8	12.6
Paper and allied products	0.6	0.5	1.4	0.8
Printing, publishing, and allied industries	3.2	3.1	2.7	2
Chemicals/ allied products	1.2	1.1	1.1	1.4
Petroleum/ coal products	0.1	0.1	0.1	0.1
Other Durables	1.6	1.6	3.1	4.3
Lumber and wood products, furniture and fixtures	0.7	0.2	1.4	0.4
Primary metal industries	0.5	0.2	0.8	0.2
Fabricated metal products	0.8	0.3	1.7	0.4
Machinery, except electrical	1.4	0.6	1.5	0.7
Electrical machinery, except electrical	1.3	1.2	1.8	2.1
Motor vehicles and equipment	0.5	0.1	0.4	0.1
Other transportation equipment	0.4	0.1	0.5	0.1
Miscellaneous manufacturing	1.2	1	2.3	2.3
Not specified manufacturing	0.4	0.4	1.1	1.3
Railroads	0.4	0.1	0.2	0.1
Other transportation	7.7	2.8	6.6	1.6
Trucking service, warehousing and storage	1.6	0.3	1.4	0.3
Communication	2	2.4	1.1	1.6
Utilities/ sanitary services	1.8	0.3	1.2	0.2
Wholesale	5.7	3.9	5.3	3.4
Other retail	6	7.2	5.5	6.7
General merchandise stores	0.1	0.1	0.1	0.1
Grocery/ dairy stores, retail bakeries	2.7	1.6	3.9	2
Motor vehicle dealers/ gas station	1.1	0.2	1.1	0.1
Eating and drinking places	4.8	2.7	4.9	2.2
Banking/ credit services	3.3	6	2.4	5.6
Finance, insurance, and real estate	6.9	7.1	8	5.8
Business service	5.9	5.9	4.6	3.5
Repair service	1.6	0.1	1.9	0.2
Other personal services	2.2	2.5	3	2.7
Entertainment and recreation services	2.1	1.5	1.2	0.6
Health services, except hospitals	1.6	4.7	1.3	4.2
Hospitals	3.8	9.8	5.7	8.9
Other non-durable	0.3	0.3	0.4	0.2
Elementary/ secondary school	2.8	7.4	2	5.6
Colleges and universities	1.8	2.2	1.1	1.1
Other educational services	0.7	1.8	0.6	1.6
Social services, religious and membership organization	1.7	3.9	1.7	4.3
Legal engineering and other professional services	7.7	5.9	4.6	5.4

Appendix 1: Percentages in New York's MSA by Gender

	1990			
	<u>New York Total</u>		<u>Puerto Ricans in New York</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
Agriculture	0.4	0.1	0.4	0
Forestry and Fisheries	0	0	0	0
Mining	0.1	0	0	0.1
Construction	8	1.1	7.4	1.2
Food and Kindred products	0.7	0.3	0.9	0.4
Textile mill products	0.5	0.8	0.7	1.2
Apparel and other finished textile products	1.6	4.3	1.7	3.5
Paper and allied products	0.3	0.2	0.7	0.2
Printing, publishing, and allied industries	2.7	2.7	3	2.1
Chemicals/ allied products	0.6	0.5	0.5	0.6
Petroleum/ coal products	0	0	0	1.4
Other Durables	0.9	0.8	1.1	0.2
Lumber and wood products, furniture and fixtures	0.5	0.2	1	0.1
Primary metal industries	0.2	0.1	0.3	0.4
Fabricated metal products	0.5	0.2	0.8	0.3
Machinery, except electrical	0.8	0.3	1	0.9
Electrical machinery, except electrical	0.8	0.6	0.7	0.1
Motor vehicles and equipment	0.2	0.1	0.2	0.1
Other transportation equipment	0.2	0.1	0.2	1.1
Miscellaneous manufacturing	0.7	0.7	1.1	1.9
Not specified manufacturing	1.2	1.4	2	0
Railroads	0.3	0.1	0.2	0
Other transportation	7.8	3.2	7.6	3.4
Trucking service, warehousing and storage	1.9	0.2	2.4	0.5
Communication	1.7	2	1.3	0.2
Utilities/ sanitary services	0.7	0.1	0.7	3.4
Wholesale	5.2	3.6	5.3	7.6
Other retail	6.8	8.4	6.8	0.1
General merchandise stores	0.1	0.1	0.1	2.1
Grocery/ dairy stores, retail bakeries	3.5	2.3	4.1	0.1
Motor vehicle dealers/ gas station	1	0.2	1	2.2
Eating and drinking places	5.9	3.3	4.2	6.7
Banking/ credit services	3.3	5.8	2.7	7.1
Finance, insurance, and real estate	7.8	8	7.1	4.1
Business service	6.4	5.5	6.7	0.1
Repair service	1.5	0.1	1.6	2.9
Other personal services	2.7	2.9	2.9	0.8
Entertainment and recreation services	1.5	1.2	0.9	7.2
Health services, except hospitals	1.8	6.8	1.4	10.2
Hospitals	3.7	9.1	5.6	0.1
Other non-durable	0.2	0.1	0.1	8.6
Elementary/ secondary school	2.8	7.9	2.6	2.1
Colleges and universities	2	2.3	1.7	2.7
Other educational services	0.9	2.1	0.9	3.3
Social services, religious and membership organization	1.8	3.5	1.7	7.7
Legal engineering and other professional services	7.7	6.4	6.3	6.3

Appendix 3: Descriptive Statistics for Puerto Ricans in the Sample

	Males		Females	
	1980	1990	1980	1990
<u>Age</u>	35.29	36.06	34.93	35.66
<u>Median Income</u>	\$10,005	\$19,492	\$7,505	\$16,100
<u>Education</u>	10.51	11.15	11.12	12.04
<u>English Ability</u>				
Well	84.2	88.6	84.7	90.3
Not Well	15.8	11.4	15.3	9.7
<u>Birthplace</u>				
United States	28.4	44.2	34	49.2
Puerto Rico	71.6	55.8	66	50.8
<u>Ethnic Niche</u>				
No	43.3	42	77.2	79
Yes	56.7	58	22.8	21
<u>Marital Status</u>				
Married, spouse present	58.6	45.2	43.5	35.3
Married, spouse absent	2.3	4.2	2.1	2.9
Separated	5.5	5.9	10.2	9.5
Divorced	6	7.8	12.4	14.4
Widowed	0.8	0.5	3.4	2.9
Never married/single	26.8	36.3	28.4	35
<u>Class of Worker</u>				
Self-employed	3.7	4.5	1.5	2.3
wage worker	79.1	76.2	77.8	72.3
Government employed	17.3	19.4	20.7	25.4
<u>Occupation</u>				
Professional	6.7	7.4	4.2	9.3
Managerial	4.1	4.9	7.5	11.5
Technical	1.4	2.4	2	3.3
Sales	6.4	8.6	7.7	9.8
Administrative Support	14.7	15.1	36.5	36.6
Service	22.4	22.7	13.6	17.2
Farming, Forestry, and Fishing	0.7	0.7	0.1	0.1
Precision Production, Craft, And Repair	14.7	14.3	3.5	2
Operators, Fabricators, and Laborers	28.3	24	24.8	10.1