The Effects of Local Labor Market Conditions on Labor Force Participation of Puerto Rican, White, and Black Women

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This article examines whether the differing impact of local labor market conditions may help explain differences in the labor force participation of Puerto Rican, White, and Black women. The authors' analysis, using the standard metropolitan statistical area (SMSA) as unit of analysis, indicates that White, Black, and Puerto Rican women are affected differently by earnings, unemployment, city size, industrial change, and other variables affecting the supply side of labor markets. In particular, White women are less responsive to income changes and more responsive to the discouraged worker effect when unemployment rises than are Black and Puerto Rican women. White women are not significantly affected by the size of the cities in which they live nor by changes in the regional demand for labor. In contrast, Black and Puerto Rican women are adversely affected by the size of the cities in which they live. However, Black women have not been affected by changes in the demand for labor, whereas Puerto Rican women seem to have been hurt by these changes. The differing impact of local labor market conditions may induce differences in the long-term trends in labor force participation for each of these groups.

The dramatic and well-documented increase in the number of women in the labor force represents one of the most important structural changes in labor markets during the postwar period. This increase is generally attributed to better job opportunities, particularly in the expanding service sector, and to rising wages. In terms of long-term trends, however, there is a growing concern that industrial restructuring and changes in other local labor market conditions have disproportionally affected minority women. Our main goal in this study is to assess how differences in regional economies can explain

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variations in the rates of Puerto Rican and non-Hispanic Black and White women's labor force participation.

Regional differences in labor force participation may be partially explained by differences in local labor markets. In particular, industrial change during the 1970s did not induce higher participation of Black and White women in the labor force, and it adversely affected Puerto Rican women. In addition, the rates of labor force participation of White, Black, and Puerto Rican women are affected by substantially different factors in local labor markets. The unequal effect of industrial employment change and other local labor market factors on different groups of women may explain the differences in the long-term trends in labor force participation for each of these groups.

Previous Research

The relationship between the long-term expansion of job opportunities for women and higher labor force participation rates is straightforward. In a pioneering study, Oppenheimer (1970) found the demand for labor to be sex-specific. Jobs tend to acquire "feminine sex labels" as women become a larger proportion of workers in certain occupational categories. Consequently, the expansion of industries with large numbers of female-typed jobs, such as exist in the service industries, leads to the expansion of the demand for female labor. From 1900 to 1960, the expansion of just four occupational categories (telephone operators, nurses, teachers, and stenographers, typists, and secretaries) accounted for 70% of the expansion in female employment. Stanback (1979) reached similar conclusions regarding the effects of the expansion in service industries on women's employment between 1960 and 1970. Of the 9 million new jobs for women in the 1960s, 5.9 million is attributed to the growth of service industries and 1.4 million to the increase in the number of women working in those industries. Nonservice industries accounted for the remaining 1.7 million new jobs for women during this period. However, the growth in female labor force participation is mediated by many other factors in regional or local labor markets.

Bowen and Finegan (1969) were the first to formalize the relationship between labor force participation (LFPR) and local labor market conditions. Using 1960 census data, they developed a model with which they estimated the effects of unemployment rates, earnings, industry mix (a proxy for the regional demand for female labor), the supply of female workers, and wages of domestics (as a proxy for the price of outside help for child rearing and house work) on the LFPR of married women, 14 to 54 years old. The standard

metropolitan statistical area (SMSA) was the unit of analysis, and a vector of socioeconomic and demographic control variables was included in their regressions.[1]

Bowen and Finegan's (1969) study showed that local labor market conditions had an important impact on the LFPR of married women. In particular, regional differences in the demand for female labor and in average female earnings had a strong positive effect on LFPR. The coefficients of their industry mix variable was higher for younger and older wives than for those in mid-age categories. They also found that married women were more responsive to the discouraged worker effect than to the added worker effect, a fact that produced a large negative coefficient for the unemployment variable. These findings were consistent with 1940 and 1950 data as well.

Diverging trends in LFPR among different groups of women since the aforementioned pioneering studies raise the possibility that not all groups of women are equally affected by changes in local labor market conditions and the expansion of female job sectors. Although women's LFPRs have increased in general, the rate of change for Black women's LFPRs has been substanially lower than that for White women. Further, Puerto Rican women's LFPR actually declined during the 1960s. Between 1950 and 1980, LFPR for White and Black women increased substantially, but the gap between their LFPRs declined from 9.5 percentage points in 1950 to 3.9 in 1980. During the same period, White women improved their relative position with respect to Puerto Rican women from a 9.9 percentage point deficit to a 9.3 advantage.[2]

In an early article, Cain (1966) explained Black women's higher LFPR as being a result of a higher proportion of part-time work (which allowed more flexibility on day care scheduling), greater employment discrimination against Black men, and greater than average marital instability. Wallace (1980) agreed with the relative importance of these factors affecting both Black women's market and reservation wages, but emphasized the role of discrimination against Black men, the negative effects of urban labor markets, and the concentration of women in a few occupational categories.

Recent research suggest that changes in socioeconomic characteristics alone cannot explain Black women's sluggish LFPR growth in the late 1960s and the 1970s. Narrowing educational differences and lower fertility rates during those years should have increased black women's LFPR and enhanced their relative position with respect to White women (Jones, 1987; Mott, 1978). The evidence from cross-sectional studies seems consistent with this interpretation. Reimers (1985) found that average differences in Black and White married women's education and fertility rates have a negative effect on Black women's LFPR and therefore cannot explain Black women's relatively higher LFPR when compared to White women.[3]

Rather, the narrowing LFPR gap between Black and White women can be attributed to changes in local labor market conditions, particularly to changes in employment opportunities. Jones (1987) proposes that a decline in the demand for Black female labor, a higher unemployment rate among young Black women (inducing a strong discouraged worker effect), and stagnant wages resulting from the greater difficulty for Black women of moving out of traditional female jobs are the most significant factors explaining a narrowing LFPR gap. However, changes in family structure and age profile of Black women are also important factors. In addition, Mott (1978) argues that a period of rapid employment change and economic deterioration have disproportionally affected those in the lower end of labor markets. The effects of business cycle downturns and a long-term declining trend in the demand for low-skilled workers have had a more adverse effect on Black women than on White women.[4]

Declines in the demand for low-skilled workers may be the most important factor explaining the decline in the Puerto Rican women's LFPR between 1960 and 1970.[5] In contrast to Bowen and Finegan's (1969) findings for White and Black women, and based on an intercity model using 1970 census data, Santana-Cooney (1979) found that the effects of industrial composition were negative and that the demand for operators in nondurable manufacturing industries was the single most important explanatory variable in determining Puerto Rican women's LFPR. The set of variables measuring local labor market conditions (which also included local unemployment rates, median earnings, and the supply of females) explained a larger proportion of variation in LFPR across cities than did socioeconomic or assimilation variables. In a follow-up study, Santana-Cooney and Colon-Warren (1979) found similar results concerning the effects of demand side variables in explaining differences in the LFPRs of Puerto Rican women.

The above discussion suggests that local labor market conditions may affect White, Black, and Puerto Rican women differently. Following previous studies, we estimated intercity regressions for White, Black, and Puerto Rican women using aggregate data from the 1980 census to address this issue. The next section explains the modeling of regional labor market conditions and the development of two alternative variables measuring the demand for female labor.

Method and Data

Our primary goal in this section is to specify a model that will capture the effects of local labor market conditions on the LFPR's of the three selected

groups of women. Previous studies assessing the influence of local labor market conditions on LFPRs (Bowen & Finegan, 1969; Fosu, 1990; Freeman, 1982; Santana-Cooney, 1979), as well as the effects of labor market conditions on other employment variables, have selected the SMSA as the unit of analysis. SMSAs are the best approximation to the economic concept of a local labor market, and data for most variables are readily available. We have selected 50 SMSAs with large numbers of Puerto Rican women.[6] Although the selection of a subset of SMSAs limits the generalization of our study, we considered the comparability of Puerto Rican to Black and White women of foremost importance given our interest in their labor market behavior.

The estimated models include two types of regressors, those representing local labor market conditions and those controlling for regional differences in human capital, socioeconomic factors affecting reservation wages, and demographic characteristics of the population. Variables capturing local labor conditions include the average income for women 16 years and older, average unemployment rate, city size as measured by total population, and the demand for female labor as represented by the industry mix variable. To assess long-term change in the demand for labor, we have included population growth between 1970 and 1980 and employment change due to variations in industry mix and in regional competitiveness.[7] Based on the previous review of the literature, we expect these variables related to the long-term demand for labor (PINDMIX, PCOMPOS) have a positive effect of LFPRs. The variable definitions and sources of data are reported in Table 1.

The data for these variables are taken from the 1970 and 1980 census *General Population Characteristics, General Social and Economic Characteristics*, or are constructed from the 1980 census *Public Use Microdata Sample (A)*.

The LFPRs' and other variables' means for the three groups of women in the selected SMSAs are shown in Table 2. The most striking observation considering regional labor market data is that although the percentage of regional growth attributed to changes in regional industrial composition (PINDMIX) is positive, the percentage attributable to the regional competitive position (PCOMPOS) is negative. In other words, after we control for the percentage of regional growth attributable to national growth, it is apparent that the 50 selected SMSAs benefited from changes in the national mix of industries despite the fact that, on average, they lost employment because of a deterioration of their relative competitive position with respect to other regions. The relatively high population average (city size) indicates that the largest SMSAs in the country are included in the sample.

Table 2 shows that there are significant differences in demographic characteristics among ethnic groups. Compare to either Black or Puerto

Table 1. Definition of Variables and Sources of Data

LFPR	Labor force participation rates, women 16 years and older. (a and b)
INCOME	Median annual income, women 15 years and older. (a and b)
UNEMP	Unemployment rate, civilian labor force. (c)
CITY SIZE	Total population in 1980. (a)
POP. GROWTH	Annual average of total population in 1970 minus total population in 1980 divided by total population in 1970. (a and d)
DFL80	Demand for female labor in 1980. (a)
PINDMIX	Percentage of industry mix, shift-share coefficient. (a and d)
PCOMPOS	Percentage of competitive positions, shift-share coefficient. (a and d)
AGE	Median age, women 16 years and older. (e)
HIGH SCHOOL	Percentage of high school graduates, women 25 years and older. (a)
FEMALE HEAD	Percentage of families headed by women, no husband present. (e)
CHILDREN	Percentage of families with their own children under 6 years old. (e)
FOREIGN BORN	Percentage of foreign born, all persons 16 years and older. (a and b)
MOVERS	Percentage with residence in different county in 1975, all persons 16 years and older. (a and b)
MINORITIES	Percentage non-White, all persons. (a)

a. *1980 Census, General Social and Economic Characteristics.*
b. *1980 Census, Public Use Microdata Sample* (A Sample).
c. *State and Metropolitan Area Data Book, 1982.*
d. *1970 Census, General Social and Economic Characteristics.*
e. *1980 Census, General Population Characteristics.*

Rican women, White women in the selected SMSAs tend to be older, with more schooling, fewer children, and a lower probability of being heads of households. Black women are more frequently family heads, have fewer foreign born among them, and have lower migration rates. Puerto Rican women are younger, less educated, and have more children. Most Puerto Rican women are island-born, and this group has the highest proportion of recent movers to the area.

Results

We estimated three separate models, of which the first includes the demand for female labor in 1980 (DFL80) as a regressor, the second includes the shift-share coefficients PINDMIX and PCOMPOS, and the third includes all three regressors. The objective of estimating three separate models is to

Table 2. Means and Standard Deviations of Variables Included in the Regressions

	White	Black	Puerto Rican
LFPR	51.68	57.06	44.93
	(5.83)	(5.34)	(8.40)
INCOME	5790	5627	4028
	(781)	(1172)	(923)
UNEMP	7.06	7.06	7.06
	(2.14)	(2.14)	(2.14)
CITY SIZE	1,604,065	1,604,065	1,604,065
	(1,946,675)	(1,946,675)	(1,946,675)
POP. GROWTH	1.14	1.14	1.14
	(2.26)	(2.26)	(2.26)
DFL80	43.12	43.12	43.12
	(2.31)	(2.31)	(2.31)
PINDMIX	19.53	19.53	19.53
	(56.98)	(56.98)	(56.98)
PCOMPOS	−100.33	−100.33	−100.33
	(449.98)	(449.98)	(449.98)
AGE	35.18	25.45	21.91
	(4.04)	(1.92)	(2.98)
HIGH SCHOOL	69.37	57.11	41.23
	(7.14)	(9.39)	(15.41)
FEMALE HEAD	12.27	38.99	28.97
	(1.83)	(7.17)	(11.44)
CHILDREN	18.43	29.23	40.49
	(2.90)	(4.40)	(6.93)
FOREIGN BORN	8.26	4.70	50.99
	(5.97)	(4.32)	(10.19)
MIGRATION	19.30	16.40	33.40
	(9.49)	(12.42)	(16.89)
MINORITIES	22.70	22.70	22.70
	(14.96)	(14.96)	(14.96)

NOTE: Standard deviations in parentheses. See Table 1 for definition of variables and sources of data.

assess whether interregional differences in the demand for female labor are a more significant factor in determining LFPR, than are long-term changes in the regional demand for labor. Conceptually, intraregional differences in the demand for female labor (as measured by DFL80) could be less significant than long-term changes in the demand for labor within any given region (as measured by PINDMIX and PCOMPOS). Table 3 depicts beta coefficients for the estimated models.[8]

Table 3: Standardized Regression Coefficients for LFPR Equations

	Models								
	White			Black			Puerto Rican		
Variables	1	2	3	1	2	3	1	2	3
INCOME	.183	.175	.164	.412	.388	.398	.744	.744	.764
	(1.33)	(1.23)	(1.12)	(4.06)**	(3.91)**	(3.93)**	(6.41)**	(6.50)**	(6.65)**
UNEMP	−.601	−.582	−.601	−.377	−.379	−.370	.057	−.008	.016
	(−5.28)**	(−5.36)**	(−5.12)**	(−3.20)**	(−3.25)**	(−3.13)**	(0.56)	(−0.08)	(0.16)
CITY SIZE	−.038	−.050	−.041	−.317	−.316	−.327	−.249	−.253	−.263
	(−0.39)	(−0.53)	(−0.42)	(−2.78)**	(−2.84)**	(−2.88)**	(−2.71)**	(−2.83)**	(−2.95)**
POP. GROWTH	−.040	−.030	−.043	.189	.137	.177	−.144	−.115	−.122
	(−0.30)	(−0.23)	(−0.316)	(1.65)	(1.16)	(1.15)	(−1.26)	(−1.02)	(−1.09)
DFL80	−.044	—	−.049	.105	—	.085	.087	—	.121
	(−0.42)	—	(−.456)	(0.78)	—	(0.615)	(0.86)	—	(1.22)
PINDMIX	—	−.028	−.009	—	.343	.297	—	−.502	−.555
	—	(0.10)	(−0.03)	—	(1.14)	(0.95)	—	(−1.96)*	(−2.15)**
PCOMPOS	—	.021	.044	—	.448	.407	—	−.471	−.532
	—	(0.07)	(0.145)	—	(1.45)	(1.27)	—	(−1.78)*	(−1.99)*
AGE	−.485	−.51	−.486	−.221	−.126	−.161	−.193	−.223	−.190
	(−2.20)**	(−2.39)**	(−2.15)**	(−1.30)	(−0.78)	(−0.93)	(−0.78)	(−0.914)	(−0.78)
HIGH SCHOOL	−.057	−.049	−.030	.173	.104	.132	−.243	−.099	−.147
	(−0.43)	(−0.37)	(−0.21)	(1.23)	(0.72)	(0.86)	(−1.18)	(−0.48)	(−0.69)
FEMALE HEADS	.520	.500	.517	−.438	−.438	−.515	−.717	−.535	−.642
	(5.22)**	(5.08)**	(4.88)**	(−1.94)*	(−2.31)**	(−2.25)**	(−3.88)**	(−3.33)**	(−3.53)**

(Continued)

Table 3 Continued

Variables	Models								
	White			Black			Puerto Rican		
	1	2	3	1	2	3	1	2	3
CHILDREN	.082	.059	.072	.088	.144	.154	−.362	−.428	−.341
	(0.38)	(0.27)	(0.33)	(0.47)	(0.77)	(0.81)	(−1.47)	(−1.86)*	(−1.42)
FOREIGN BORN	.108	.100	.098	.204	.184	.165	.182	.191	.195
	(0.93)	(0.82)	(0.80)	(1.95)*	(1.82)*	(1.54)	(1.81)*	(1.96)*	(2.04)*
MOVERS	−.095	−.118	−.123	−.549	−.491	−.604	.018	−.031	−.005
	(−0.50)	(−0.58)	(−0.59)	(−1.90)*	(−2.19)**	(−2.08)**	(0.15)	(−0.27)	(−0.04)
MINORITIES	−.204	−.185	−.187	.017	−.026	−.037	.071	.111	.105
	(−1.27)	(−1.10)	(−1.10)	(0.16)	(−0.25)	(−0.34)	(0.82)	(1.25)	(1.20)
Adj. R^2	.73	.72	.71	.69	.70	.69	.74	.76	.76
F	11.86	10.72	9.75	10.01	9.72	8.89	12.69	12.62	11.99

NOTE: t scores in parentheses.

*significant at the .10 level; **significant at the .05 level.

Most labor market condition variables perform relatively well and have the expected effect on labor force participation. Income has the largest effect among labor market regressors in the Black and Puerto Rican women's equations. The difference in magnitude of the income coefficient in the equations suggests that low-income workers' labor force participation is more responsive to changes in average earnings. The opposite seems to be true with respect to unemployment. White women show a much stronger response to the discouraged worker effect than Black women. In contrast, the (insignificant) coefficient for Puerto Rican women's equations seems to capture a strong added worker effect, canceling the negative impact of discouraged workers on labor force participation. Although both Black and Puerto Rican women have a high unemployment rate in most areas under study, the difference in a larger added worker effect between Black and Puerto Rican women may correspond to historical differences in labor force participation. Because Puerto Rican women have had a lower LFPR than Black women in recent decades, higher male unemployment in Puerto Rican families may find a larger reserve of Puerto Rican women available to be incorporated into the local labor force.

City size has a significant negative effect on Black and Puerto Rican women but is statistically insignificant for White women. Apparently, large urban centers offer fewer employment opportunities for minority women than smaller urban areas. The effects of population growth on labor force participation are less conclusive; the coefficients in all equations are not statistically different from zero.

The next set of labor market condition variables pertain to differences in the demand for female labor across SMSAs and to long-term changes in the demand for female labor within any given SMSA. DFL80 was not significant in any of the equations. In contrast, Bowen and Finegan (1969) found industry mix to have a strong positive effect on the labor force participation of nine different subgroups of women (divided according to age and presence of children under age 6) using census data for 1940, 1950, and 1960. Using 1970 census data, Santana-Cooney (1979) reported that industry mix had a strong and negative effect on the labor force participation of Puerto Rican women. Although these studies are not directly comparable to ours (because of differences in the geographical distribution and the groups selected from the population), the statistical insignificance of the coefficient may indicate that regional differences in the demand for labor are no longer significant factor explaining LFPR by 1980. These results corroborate similar findings for 1980 by Fosu (1990). Our findings suggest that industry mix may no longer be a good proxy for the demand for female labor—perhaps because women have increased their representation in traditionally male sectors or

because industrial restructuring have forced more men to work in services and in white-collar occupations. This is a very tentative conclusion that requires further consideration.

Contrary to our expectations, the shift-share coefficients PINDMIX and PCOMPOS have a negative effect on the labor force participation of Puerto Rican women and are insignificant for White and Black women. From our previous discussion of the literature, we expected long-term changes in the demand for female labor to have a positive effect on the labor force participation of White women and a small or negative effect on the participation rate of Black and Puerto Rican women. This result could be interpreted as indicating that long-term changes in the regional demand for female labor have adversely affected Puerto Rican women but have no effect on White or Black women. Considering both the variables measuring intraregional differences in the demand for female labor as a result of differences in industrial mix (DFL80) and the shift-share coefficients representing long-term changes in the regional demand for labor (PINDMIX, PCOMPOS), these results suggest a reversal of the clearly positive effects of changes in labor demand on women's LFPR in previous decades.

The last set of variables pertain to the supply side of labor markets. The percentage foreign born, percentage migrating to the area, and the percentage of minority workers may affect ethnic competition and labor reserves in regional labor markets. Foreign- or island-born Black and Puerto Rican women have a higher labor force participation than their native counterparts. The positive effect of this variable on LFPR is explained by the selectivity of immigrant workers who tend to be young and highly motivated. However, the percentage of people who have recently moved to a given regional labor market negatively effects the labor force participation of Black women suggesting that those most likely to have moved in search of better economic opportunities were the very people most able to benefit (in terms of finding employment) from the move. The concentration of minorities in a regional labor market is not a factor affecting the LFPR of any group of women. Considering the combined effect of these variables, Black women are apparently the only group who are affected by competition for jobs within regional labor markets.

Of the variables included to control for the social characteristics of the population, the percentage of families headed by women and median age offer the most interesting results. White women's labor force participation is negatively affected by a relatively older population but positively affected by the growing number of female head of households. These results conform to the predictions of conventional economic theory. Older workers tend to

reduce their labor force participation and single parents are forced to work as they become the only earners in a family. Black and Puerto Rican women's LFPRs benefit from a younger population but, in contrast to White women, are negatively affected by a high number of families headed by women. The negative effect of the percentage of families headed by women among minority mothers could be attributed to their lower earnings capacity and the higher rates of inadequate or nonexistent child support from the absent father. Low levels of wage and nonlabor income receipt make covering the fixed cost associated with working all the more difficult for these single mothers.

Overall, after one controls for differences in demographic factors, it is evident that regional labor market conditions play an important role in determining LFPRs for White, Black, and Puerto Rican women. However, there are significant differences in the determinants of LFPR structure among these three groups. White women are less responsive to income changes and more responsive to the discouraged worker effect when unemployment rises than are Black and Puerto Rican women. White women are not significantly affected by the size of the cities in which they live nor by changes in the regional demand of labor. In contrast, Black and Puerto Rican women are adversely affected by the size of the cities in which they live. However, Black women have not been affected by changes in the demand for labor, whereas Puerto Rican women seem to have been hurt by these changes. These indications of the unequal effect of changes on labor demand on different groups of women are less conclusive than other results, and evidently more research is needed in this area.

Conclusions

Regional differences in labor market conditions have played a role in determining the labor force participation for White, Black, and Puerto Rican women. Our analysis indicates that White, Black, and Puerto Rican women are affected differently by earnings, unemployment, city size, industrial change, and other variables affecting the supply side of labor markets. The differing impact of local labor market conditions may help explain differences in the long-term trend for each of these groups. The expansion in demand for female labor is directly related to the expansion of service industries and white-collar occupations (Oppenheimer, 1970). But service sector employment is characterized by an increase in part-time work and underemployment, an increase in the proportion of low-wage jobs, a change in the geographic location of jobs, and an increase in required educational credentials (Browning & Singelmann, 1978; Sheets, Nord, & Phelps, 1987).

The characteristics of service sector employment may open different sets of employment opportunities for White and minority women (Bridges, 1980; Noyelle, 1987; Stanback, 1979). Obviously the concentration of Puerto Rican women as operatives and laborers in nondurable manufacturing was a major factor in the dramatic decline of their labor force participation during the 1960s. Less evident, perhaps, is that Black and Puerto Rican women have been adversely affected by the relocation of the back office from the central city business district to the suburbs, by higher educational requirements for new jobs in the city, and by changes in local demand for female labor that resulted from the automation of office work during the 1970s (Rodríguez, 1979). Similarly, the expansion of job opportunities in technical and professional occupations may benefit White women more than minority women. The concentration of minority women in low-wage service jobs and the reduced number of avenues to move out of traditionally female jobs may have had a long-term adverse effect on their LFPR.

The effect of local labor market conditions on black and Puerto Rican women's labor force participation remains an area to which researchers have paid little attention. Changing local labor market conditions are not likely to be the only explanation for the sluggish trends in minority women's LFPR when compared to significant gains by White women. Alternative explanations, such as demographic change or differences in cultural values, however, have remained unsatisfactory. The impact of changes in local labor market conditions on Black and Puerto Rican women's LFPR's is one of several plausible explanations that deserve further study.

Notes

1. Control variables included husband's income, other household income, schooling, race, number of children, and migration.

2. According to the 1950 census, the LFPRs for White, Black, and Puerto Rican women were, respectively, 29.0%, 38.5%, and 38.9%. By 1980, these rates had increased to 49.0%, 53.3%, and 40.1%.

3. Reimers proposes, instead, that cultural differences are a more reasonable explanation for differences in LFPR among White and Black wives. However, the cultural difference analysis is pertinent only for U.S.-born Asian women, whereas educational differences fully account for the gap in LFPR between U.S.-born White and U.S.-born Hispanic women.

4. Mott also proposes that declining real wages narrow the difference between the wages of the working poor and welfare (after other work-related costs are considered), suggesting that welfare may be an important factor in lowering Black women's LFPR. Although existing research shows participation in welfare programs to have a small negative effect on LFPR, we believe that maintenance program participation may have little to do with long-term trends of women's participation in the labor force. For one, the LFPR for all groups of women rose sharply during the 1970s when the average welfare payment increased, but the opposite trend is apparent

in the 1980s. Reagan's budget cuts to domestic programs, together with the implementation of work-for-welfare programs at the state level, suggest that program participation has become more difficult but that increases in women's LFPR seem to have slowed down during the 1980s.

5. The declining LFPR of Puerto Rican women during the 1960s and lower LFPR than other groups' during the 1970s is also attributed to circular migration and the effects of income maintenance programs (Tienda, 1985; Tienda & Jensen, 1986). Research explaining LFPR differences between Hispanic and non-Hispanic women has also attributed these differences to cultural factors as reflected in fertility rates (Bean, Swicegood, & King, 1985) and family structure (Tienda & Glass, 1985). However, Ortiz and Santana-Cooney (1984) found that sex-role attitudes play no part in explaining the differences in labor force participation for Hispanic women. Their research questioned the "cultural difference" explanation of Hispanic women's lower level of labor market activity.

6. As a rule of thumb, we selected all the SMSAs with at least 50 cases in the 1980 census PUMS (A). This minimum number of cases allowed us to compute some variables for Puerto Rican women for which published data are not available.

7. The demand for female labor (DFL80) is a variable similar to industry mix as developed by Bowen and Finegan (1969), a widely used proxy for "the relative abundance in the SMSA of industries which tend to provide employment for females." We have used shift-share coefficients as a proxy for long-term change in employment. Shift-share analysis has been extensively used to decompose regional employment growth into three effects that correspond to national growth, regional industry mix, and competitive regional industrial position. In contrast to DFL80, which measures regional differences in employment opportunities for women at one point in time, shift-share coefficients measure regional employment change between 1970 and 1980. Thus the percentage employment change attributable to changes in industry mix (PINDMIX) can be interpreted as the long term change in the demand for labor as a result of changes in regional industrial composition, after controlling for other changes in labor demand associated with national growth and regional competitive position (PCOMPOS). Because, by definition, the total employment change equal 100% in each region, the percentage corresponding to national growth was not included in the equations, to avoid multicollinearity among the regressors. A detailed explanation of the procedure to estimate these variables (DFL80, PINDMIX, PCOMPOS) and the values for the elected SMSAs are available from the authors.

8. Beta coefficients are one way to make regression coefficients more comparable. However, because beta coefficients are estimated using the regression coefficients that are contingent on the other independent variables included in the model, beta coefficients are not an absolute measure of the relative importance of independent variables.

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