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**The Effects of Immigrants on African-American Earnings:
A Jobs-Level Analysis of the New York City
Labor Market, 1979-89**

by

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Introduction

The improvement in the relative economic status of African-American workers in the 1960's and 1970's was reversed in the 1980's, a decade that also featured a collapse in the relative (and real) wages of the least skilled (Bound and Freeman, 1992; Blau and Kahn, 1992; Levy and Murnane, 1992). At the same time, the U.S. experienced the largest absolute and per capita levels of immigration since the early part of the century. Significantly, this recent wave of immigrants was far less skilled, at least in terms of educational attainment, than earlier waves of immigrants in the post-war period. Friedberg and Hunt (1995) report that 43% of new immigrants did not possess the equivalent of a high school degree. And according to a recent study by David Jaeger (1995), in the 50 largest metropolitan areas employed male immigrants were about 16% of the civilian workforce with less than a high school degree in 1980; by 1990 this figure was over 30%. For women, this figure rose from 17% to almost 28%.

Not surprisingly, there is a concern that growing numbers of immigrant workers have negatively affected the standing of African-Americans in urban labor markets. But with the exception of Borjas, Freeman and Katz (1996) and Jaeger (1995), the consensus in the research community appears to be that there has been little if any negative wage effects (see the surveys by Borjas, 1994; Friedberg and Hunt, 1995; and DeFreitas, 1996; National Academy of Sciences 1997). This is a rather surprising finding, since it requires a nearly instantaneous adjustment to labor supply shocks in local labor markets. Borjas (1994) terms this an "unresolved puzzle." Indeed, it is particularly puzzling since the sharp growth in the supply of low-skill immigrants took place during a decade in which the power of labor market institutions to shelter low-skill workers from intense wage competition was severely eroded.

In our view, the failure to find earnings effects from sharply rising supplies of low-skill

foreign-born workers in increasingly deregulated labor markets may reflect the dominant research methodology, which has been to explore these effects with across-metropolitan tests. Since immigrants are overwhelmingly concentrated in a small number of urban labor markets, such as Los Angeles, New York, Houston, San Francisco, and Miami, we would expect wage effects to be concentrated in these same cities. In addition, the effects of increasing supplies of low-skill workers on wage outcomes are likely to be strongest in *jobs* that are unsheltered by unions, civil service rules, or craft- and firm-specific skill requirements. Indeed, if wage-setting for low-skill workers takes place mainly at the job-level (see Thurow, 1975),¹ then the effects of a large increase in labor supply should be explored at the level of detailed jobs in specific metropolitan labor markets.

Our focus on African-Americans² in this chapter stems from a widespread concern over the causes of the reversal in their relative economic status at the national level, noted above, but also by the poor and declining status of native-born black men in New York City in the 1980's and by the vulnerability of both African-American men and women to the public sector employment declines that characterize big cities in the early 1990's. Data from New York City in the 1980s reinforce these concerns. Examining data on men ages 18 to 65 in various demographic groups who worked at least 20 weeks in 1980, we find that African-American men had much lower employment rates than foreign-born men (or, disaggregating further, foreign-born black men).³

¹ For example, truck driving positions in light manufacturing industries, food service occupations in hospitals, or secretarial positions in the financial sector

² We use "African-American" and "native-born black" interchangeably in this paper.

³ The rate for African-American men was 63.2% in 1980, for Foreign-born men it was 79.3 and for foreign-born black men it was 74.3.

By 1990, while the employment rate for African-American women rose, it fell for African-American men had declined, reaching a level below the foreign-born women rate.⁴ Equally troubling, and in sharp contrast to foreign-born men, African-American men held a smaller share of total male employment (for those working at least 20 weeks) in 1990 than they held in 1980 (see Table 1). Unlike their male counterparts, African-American women increased their share of total female employment.⁵

The growth of the foreign-born share of the NYC labor market, particularly among low-skill workers, and the declining relative position of African-American men raises a number of employment-related questions that have not been adequately addressed to date. Do African-American men and women tend to work in the same jobs as foreign-born workers, particularly foreign-born black workers? While we have a good idea about the industries in which African-Americans work, little work has addressed employment trends at the *job* level - detailed occupation-industry cells. Defined this way, what are the key African-American "job niches" in New York City, and did they increase, maintain, or lose hold on these jobs in the 1980's? Was the share of recent immigrants in African-American job niches statistically associated with differences in African-American wage levels? If so, was this link stronger by 1990, after a period of high low-skill immigration? More precisely, was the *change* in African-American earnings at the job level associated with the *change* in the number of immigrants in these job niches?

In this chapter we address these questions using data grouped into "jobs," created by

⁴ Based on our calculations, using the 1980 and 1990 5% Public Use Microdata Samples, the rate for African-American men in 1990 were 61.9%, for foreign-born women, above 65%.

⁵ African-American women increased their employment rate from 50% to 58.7% and their employment share from 15.7% to 16.3%.

aggregating individual-level Census data for the New York Metropolitan area into detailed occupation-industry cells for 1980 and 1990.⁶ This job level focus allows us to concentrate on the particular areas of the labor market where effects are likely to occur. *Section 1* presents an overview of the distribution of employment for native-born blacks and immigrants using a “job contour” framework developed by Gittleman and Howell (1995) which categorizes jobs into six contours based on job quality (see below). While the distribution of black workers across these contours changed little, the share of immigrants grew substantially in all six job contours. Recent immigrants continue to be heavily concentrated in secondary jobs where wage-based competition among groups is likely to be the strongest.

Native-born black workers are highly concentrated in particular jobs, and strong wage effects would be most likely to occur if recent immigrants were successful in competing for them. The significance of ethnic job niches is well established in the immigration literature (Model, 1993; Waldinger, 1994, 1996a, 1996b), and is usually understood as a job in which a demographic group (defined by race, ethnicity, gender, and foreign/native born status) is highly concentrated. In *Section 2* we identify the 12 largest native-born black job niches separately for male and female workers and present the change in the foreign-born share of employment for each. We find that while the average foreign-born share in the 12 black female niches was about 16 percent in 1980, it was over 31 percent in 1990. Across black male job niches, the foreign born share increased from just over 20 percent to about 37 percent in this decade.

⁶ We use as our definition of the New York City labor market the five boroughs that make up the city itself (Manhattan, Brooklyn, the Bronx, Queens and Staten Island), Westchester county to the north and Nassau county to the east. For convenience, throughout the remainder of the paper we will refer to this metropolitan area as “New York City.” In a forthcoming paper we use an expanded definition of the regional labor market, adding suburban counties in New Jersey.

Substantial penetration into black native-born job niches by recent immigrants, may signal either crowding or the adoption of low-wage management strategies aimed at reducing labor costs, or both. Low-wage management strategies became increasingly attractive in the 1980's as changes in public policy and social norms undermined the effectiveness of protective labor market institutions. In this setting, the immigrant share of job employment may have negative effects on wage levels, particularly for African-Americans. *Section 3* presents the results of regression tests of this hypothesis for detailed jobs in the New York City area. Our findings confirm that the recent immigrant share of job employment is negatively associated with African-American male earnings (in all jobs) in both 1979 and 1989. In addition, the *change* in the new immigrant share of job employment show a strong negative association with the *change* in African-American male earnings in this decade. The results for females are more ambiguous. The separate tests for 1979 and 1989 do not produce measurable immigrant wage effects on African-American female workers. But like the results for men, the *change* in recent immigrant share is strongly associated with the 1979-89 change in female African-American average job earnings.

1. Changes in the New York City Job Structure

We begin by documenting the distribution of various racial and national origin groups across jobs grouped by various measures of job quality. This allows us to see where immigrants enter the New York City labor market, where they are most concentrated and how their concentration compares to that of African-American workers. Without a strong overlap between the types of jobs held by these two groups, particularly in the more competitive secondary sector of the labor market, we would not expect to find that immigration affects the earnings of African-

American workers.

A Job Contour Framework

Using standard Census and Current Population data, the best measure of a "job" is to make use of both industry and occupation level data (Costrell, 1990). Why are occupation-industry cells a better level of job analysis than either industries or occupations separately? There are vast differences in the quality of jobs in each industry, no matter how narrowly defined is the industrial sector (orderlies and doctors in the Hospital industry, for example). Similarly, occupation groups include very different kinds of jobs depending upon the industry of employment. Compare, for example, the earnings of a legal secretary with a secretary employed in, say, a private university. Or compare the pay of a truck driver for a local furniture store with a driver for the U.S. Postal Service.

One could, therefore, define jobs by both occupation and industry, and then group these occupation-industry cells into a small number of categories based on a variety of indicators of job quality. This would offer the advantages of both simplicity (a small number of job groups) and usefulness (job groups that are relatively similar in terms of quality). Using cluster analysis, Gittleman and Howell (1995) grouped 621 jobs (94% of the nonagricultural workforce) on the basis of 17 measures of job quality⁷ and found that the structure of jobs could be characterized in three tiers, or "segments," each with two component "contours." Each of these job contours employed between 11 and 21 percent of total employment in 1979 (see Table 2). The segments and

⁷ Demographic characteristics like gender, race, age, and marital status were not employed in the cluster analysis.

contours conform nicely to the divisions in the labor market described in segmentation theories (Gordon, Edwards and Reich, 1982).

These six contours were defined using national data for 1979 (primarily from the 1980 Census). Nationally, average earnings ranged from \$17,400 in the highest contour (the Private Independent-Primary contour), where 86 percent worked full-time, to \$4,700 in the bottom contour (the Low-Skill Service contour), where only 37 percent were full-time. Despite educational attainment that was almost a year and a half greater (12.8 compared to 11.4), the average hourly wage varied greatly across the two contours of the second segment of the labor market, the Routine White-Collar and High-Wage Blue Collar contours. The hourly average wage in Routine White Collar jobs was just 70 percent of the High-Wage Blue-Collar wage (\$5.24, compared to \$7.44). Not surprisingly, 75% of Routine White-Collar job holders were female, compared to just 15% of High-Wage Blue-Collar employees. Both unionization and health insurance coverage were also highest in the High-Wage Blue-Collar contour.

The Distribution of Workers Across Job Contours in New York City

We employed this job contour framework to discover where recent immigrants were found in the New York City labor market in 1980 and how their distribution across job contours changed during the 1980s. Comparing the pattern found for immigrants to that for African-Americans (both male and female), we find that large shares of immigrant and native-born workers were found in the same job contours in 1980.

To begin, we checked the consistency of the contour framework developed with national data to conditions in New York City. Figure 1 reports average 1980 wage and salary earnings for

all workers with at least 20 weeks of work in the New York City labor market by job contour, separately for males and females.⁸ The bars show that earnings generally decline from left to right for both men and women, confirming that the nationally-defined job contours (Gittleman and Howell, 1995), which were defined to range in quality from Contour 1 (highest) to contour 6 (lowest), reflect the relative quality of jobs (at least when defined as average earnings) in NYC. A closer look shows that each pair of contours (1 and 2, 3 and 4, 5 and 6) appears to lie on a plateau, suggesting that the six contours can also be usefully viewed to comprise three labor market segments (Independent Primary, Subordinate Primary, and Secondary).

Figure 2 presents the distribution of employment across job contours by sex in 1980. Male workers were concentrated in contours 1 and 5 and most female workers held jobs in contours 3 and 6. Table 3 reports virtually no change in the distribution of employment across the contours for men, but a substantial upward shift for women. While 16 percent of all experienced (20 weeks plus) women held Private Independent Primary jobs in 1980, 22 percent held these jobs in 1990. There was also a 3 percentage point shift towards Public Independent Primary jobs. These increases were made possible by shifts away from Routine White-Collar (contour 3) and Low-Wage Service (contour 6) jobs.

We look next to how recent immigrants fit into the city's labor market during the same

⁸ Throughout the remainder of the paper we use the 5% Public Use Microdata Sample from the Census of Population for 1980 and 1990. By including individuals ages 18-65 who worked at least 20 weeks in the year prior to the census, we limit ourselves to those with work experience who are strongly attached to the labor market. It should be noted that one of the effects of an increasing supply of low-skill foreign-born labor may be to push African-Americans out of the labor market altogether, a result that Ong and Valenzuela (1996) report for Los Angeles. We focus only on those who are more than intermittently employed in the above-ground labor market as reported in the Census.

period. Table 4 reports the distributions of native-born black and recent immigrant workers across job contours in 1980 and 1990. The top panel shows that while the distributions of African-American and immigrant women were broadly similar - both were heavily concentrated in contours 3, 5 and 6 - African-American women were more much highly represented in the independent primary contours (1 and 2) and less concentrated in the secondary contours (5 and 6).

The lower panel of Table 4 shows that, with the notable exception of the very best jobs (contour 1), African-American men had a higher quality mix of jobs than recent immigrant men: 11.6 percent held jobs in contour one in 1980, compared to just 4.3 percent of immigrant men; and while about 34 percent of African-Americans held secondary jobs (contours 5 and 6), almost half of all employed immigrant men worked at these jobs in 1980.

This Table shows that the quality mix of jobs improved most for native-born black women, followed by immigrant women and native-born black men. Only immigrant men experienced a downward shift: their concentration in the secondary contours increased slightly, by about 1.5 percentage points. Based on these data, we should be alert to possible gender differences in the effect of immigration on African-American workers.

Another dimension of employment change that may be relevant for understanding wage trends is the change in the *within-contour* share of employment of recent immigrants. A sharp increase in a population known to be least capable of resisting employer efforts to reduce wages may signal either crowding or a downward shift in wage norms. Figures 3a and 3b show that with one exception (a small decline in contour 4 for females), recent immigrants increased their share of employment in each contour. This growth in the presence of immigrants was most pronounced

in the secondary contours, particularly for men, where the increases were on the order of 30-35 percent (7-8 percentage points).

In conclusion, the bar charts show the growing presence of foreign-born workers in each job contour. Unlike immigrant workers, African-Americans accounted for a lower share of jobs in the two secondary sectors, which could be viewed as a positive development if it resulted from a shift to better jobs as a result of skill upgrading or greater access to good jobs. It may, however, simply reflect an abandonment of the secondary labor market by low-skill African-Americans, particularly men, in the face of greater competition from foreign-born workers. This is certainly a plausible explanation, given the adverse employment trends for native-born black men outlined at the beginning of this paper. We examine employment trends in more detail in the next section by focusing on native-born black job niches - those jobs in which African-Americans are most highly represented and concentrated.

2. African-American Job Niches in 1980

The last section examined employment shifts in NYC with a job contour framework, in which each contour is simply defined as a group of jobs of similar quality. In this section we focus on a small number of jobs in which African-American workers are concentrated in relatively large numbers. We define a “job niche” for any given demographic group as a job (occupation-industry cell) in which that group’s share of employment is 150% of that group’s share of city’s employed work force (those working at least 20 weeks in the previous year).⁹ For African-

⁹ This 150 percent threshold follows Model (1993) and Waldinger (1996). But we add the constraint that the niche must account for a relatively large number of workers. In this study, a job qualifies as an African-American job niche if it meets the 150 percent threshold and has at least 99

American men, this threshold was 18% (since this group comprised about 12% of the 1980 New York metropolitan area employed workforce in our sample); for native-born black women, the threshold was 24%. These criteria produced 12 female and 12 male job niches (a threshold of 100 would have resulted in 11 male niches). The smallest job niche comprised just under 1 percent (.8%) of both total male and total female employment.

Female Job Niches

Table 5 presents data on African-American female job niches. The column labeled "Job Niches" defines each niche, giving the occupation on the first line and the industry on the second. General Office Clerks define three of the 12 job niches. Health service occupations, the focus of much case study research on West Indian women (Mueller and Howell, 1996), appear in two others. Perhaps most significant, the second largest niche for native-born black women in New York City was Household Workers in 1980; over the course of the decade, the African-American share of this job declined from 36 to 15 percent - by 1990, this job was no longer an African-American job niche.

African-American women are heavily concentrated in a small number of industries in New York City. Ten of the twelve job niches are located in just three industries: four are in the Welfare Services and Education industries; three are in Medical Services and Hospitals; and three are in

NBB male (female) workers with at least 20 weeks of work experience in 1979 in the 5% PUMS sample for the 7 counties. Since this figure of 99 workers comes from a 5% sample, there were at least 1,980 native-born male (female) black workers employed in each of our 12 New York metropolitan job niches in 1980.

Transportation, Communications and Public Utilities.¹⁰

While these 12 jobs accounted for 10.6% of all experienced female workers in the metropolitan area in 1980, they employed 23.3% of all African-American female workers. This figure declined to 20% in 1990. Even more striking is the concentration in the first five jobs listed, in which 16.1% of all African-American female workers worked in 1980 and 14.6% worked in 1990. In these top five female job niches, African-American women accounted for 29-60% of total female employment. These five jobs were also job niches for foreign-born black women; column 5 shows that these workers held between 10 and 26% of the positions in these jobs (the 150% threshold for a foreign-born black female niche is 9%). Interestingly, the black native-born share of these largest niches declined over the 1980's, while the share of black foreign-born workers increased or was stable in four of the five. Among the full set of 12 job niches, foreign-born black workers experienced a declining share in only two, compared to nine for native-born black women.

The results are even more striking for all foreign-born female workers (columns 5 and 6). While foreign-born female workers were not particularly concentrated in African-American job niches in the 1980 (the foreign-born female threshold is 34%), the foreign share increased sharply from 1980 to 1990 for each of these 12 native-born black female job niches: for example, the

¹⁰ Some of these niches could probably be merged together without losing too much information, but we have been conservative and avoided this step, preferring to go with the full detail available in the Gittleman-Howell classification. The dangers of collapsing these jobs can be illustrated by the three General Office Clerk jobs (282, 283 and 333) which appear at the bottom of Table 5. While similar on most criteria in the Table (columns), the share of employment in the public sector varies dramatically, from 18 percent for those in the Transportation, Communications and Public Utilities, to 40 percent for those in Medical Services and Hospitals, to 100 percent for those in Public Administration. These differences may be significant for the effects of immigrants on wages in these three jobs.

foreign-born share rose from 36 to 52% for Health Service Workers (job 457); from 26 to 78% for Household Workers (job 594); and from 12 to 45% for Child Care Workers (job 610). The last row shows that the mean share of foreign-born workers in these 12 African-American female job niches almost doubled, from 16.3% in 1980 to 31.3% in 1990.

Finally, with just a few exceptions, these African-American female job niches were characterized by large shares of public sector jobs. Despite the fact that the second largest job niche had no public sector workers, 35.5% of the workers in these 12 job niches held public sector jobs, about twice the rate (18.6%) for the entire sample of female workers. Columns 7 and 8 show that the three job niches showing a substantial decline in the public share of female job employment were in the Welfare Services and Education industries. For all 12 niches, the last row shows that the mean public share fell from 46 to 41%, due in large part to the privatization of Child Care (row 7).

Male Job Niches

Table 6 lists the 12 largest native-born black male job niches. The largest three niches in both 1980 and 1990 were located in the Transportation, Communications, Public Utilities industry group: Bus and Taxi Drivers, Postal Clerks/Mail Carriers, and Heavy Truck Drivers. Only two, Misc. Health Service Workers (Job 457) and Social, Religious and Recreation Workers (Job 159) also make the African-American female list. But like the female list (Table 5), there is one male niche in the Private Households/Personal Services industry. Both female and male niches in this industry showed a sharp decline in the share of African-Americans employed between 1980 and 1990: Household Workers fell from 3.6% to 1.2% of all female African-American workers, while

Cooks fell from 1.5% to 1.1% of all male African-American workers. Two African-American male job niches with large increases in employment shares were Heavy Truck Drivers in Transportation, Communications and Public Utilities (Job 417) and Guards in Business and Repair Services (Job 444).

The 12 job niches listed in Table 6 accounted for 9.2% of total male employment in 1980, but accounted for 18.1% of African-American male employment in New York City. The most serious erosion in the employment share of African-Americans in African-American job niches took place among bus, taxi and truck drivers in the high-wage Transportation, Communications and Public Utilities industries (niches 1 and 3). Compared to a mean earnings for all 12 niches of \$12,379 in 1979, Bus and Taxi drivers earned \$13,509 on average, and Truck Drivers earned \$14,063.

Foreign-born men (columns 5-6) as well as foreign-born black men (columns 3-4) sharply increased their share of employment in all 12 African-American male job niches: the mean employment share increased from 7.1 to 12% for foreign-born black workers, and from 20.4% to 36.9% for all foreign-born workers. Yet, the mean African-American share of employment in their job niches remained unchanged over the decade at just over 22 percent. This suggests that recent immigrants are replacing white workers in these African-American job niches. This pattern may be significant for African American wages if the replacement of older white men by younger immigrants has the effect of bidding down the prevailing wage for the job - particularly the prevailing wage for NBB men.

Columns 7 and 8 show the public sector share of male job employment in the 12 African-American job niches. While 17.5% of all male jobs in the NY metropolitan area were in the public

sector, 40.4% of the workers in these African-American niches held government jobs. The last row shows that the average public share of employment in these 12 niches was 36.9% in 1980, falling slightly to 34.9% in 1980.

In summary, our analysis of the largest African-American job niches shows that foreign-born workers increased their share of employment in each of the 12 male and 12 female job niches. By 1990, foreign-born workers accounted for over 25 percent of the workforce with over 20 weeks of work in all 12 male niches compared to just 4 job niches in 1980. Among female job niches, at least 20 percent of employment was foreign-born in each of the 12 niches in 1990; ten years earlier there were only 5 niches with at least this foreign-born share. Particularly for female job niches, the increases corresponded to declining native-born black employment shares. But in most cases, it appears that most of the foreign-born gain occurred at the expense of white native-born workers who moved out of the metropolitan area (see Waldinger, 1996a).

3. Earnings Analysis

The previous section documented the extraordinary success of immigrant workers in carving out for themselves large portions of native-born black job niches in New York during a decade in which the capacity of labor market institutions to shelter low-wage workers from wage competition was significantly undermined. If this success stemmed at least in part from wage competition, and if African-Americans are among the workers in a given job who are most vulnerable to this competition (either due to racism or to real or perceived shortfalls in cognitive skills, "soft" skills, or motivation), then we should expect to find negative effects of the share of immigrants in total job employment on mean African-American earnings across jobs in the New

York metropolitan area.

We test for effects of immigrants on African-American earnings with jobs-level regressions for 1979, 1989, and for the change in earnings from 1979 to 1989. Our unit of analysis is the job, defined as a detailed occupation-industry cell. The Gittleman-Howell classification scheme consists of 621 cells and covers about 94 percent of the national workforce. Our aim was to include as many of these jobs as possible while insuring that there were enough observations in each cell for statistical reliability. We chose to include the job if there were at least 5 native-born black females (males) in the cell in our sample. Since it is a 5 percent sample, this means that in each of the 316 male and 294 female jobs that met this constraint for 1979 there were at least 100 African-American workers employed in the New York metropolitan area. In the 1979-89 wage change tests this threshold was required for both years, which produced a sample of 253 male jobs and 240 female jobs. We include those between 18 and 65 years of age who worked at least 20 weeks in 1979 (1989).

The separate tests for 1979 and 1989 attempt to determine whether the immigrant share of employment had a measurable wage effect for those African-Americans strongly attached to the labor market at the beginning and end of the decade. A comparison of the coefficients for each year may also offer some insight about the impact of the surge of immigration in the 1980's on average African-American job earnings: if the *increase* in immigration had an effect, the (presumed) negative coefficient for 1989 should be larger than for 1979.

In these tests for 1979 and 1989, mean log earnings of native-born blacks by job are regressed, separately for men and women, on the new immigrant job share (immigrants arriving within the previous 15 years employed as a percent of all employees in the job), controlling for 1)

mean native-born black (NBB) years of schooling, 2) mean NBB weeks of work, 3) two labor market “structure” measures (the public sector share of total job employment and a dummy variable for secondary jobs, which are identified on the basis of 17 job quality measures - including wages - at the national level for all workers), and 4) a “concentration” measure (the NBB share of total job employment). If the recent immigration share has an explanatory role, its coefficient should be negative and significant. If the growth in immigration in the 1980's has an additional effect, the immigrant share coefficient should be larger - explain more earnings variation - in 1989 than in 1979.

As a further test, we regress the 1979-89 *change* in black native-born earnings on the 1980-90 *change* in immigrant share. In addition to mean NBB educational attainment (1980) and change in weeks worked variables (1979-89), we include two “structural” controls: the share of workers employed in public sector jobs in 1980 (presumably these are more sheltered jobs, suggesting a positive wage change effect) and a dummy for secondary jobs (jobs that are less sheltered from wage competition, suggesting a negative wage change effect). To account for differences in labor market demand facing workers in different jobs, we include a measure of the 1980-90 change in total job employment (greater demand should increase the African-American wage, suggesting a positive wage change effect).

We also include the level of black native-born earnings in 1979. Since this measure is highly correlated with mean NBB educational attainment across jobs, we run separate tests for each, shown in columns 1 and 2 of Table 8). Reflecting some combination of higher level of job-related skills and bargaining power (labor market shelters), relatively high mean job earnings in 1979 may indicate being well-positioned to take advantage of the more competitive labor markets

of the 1980's, suggesting a positive wage change effect. On the other hand, higher African-American wage levels may also measure the incentive employers have to reduce wage levels while remaining competitive for the best low-wage (immigrant) workers, suggesting that we might expect a negative wage change effect.

Finally, we also include two "concentration" variables, the share native-born black in 1980 and the change in that share from 1980-90. The reasoning here is that the greater the concentration of native-born blacks and the greater the increase in this concentration, the lower will be the growth of African-American earnings *if* this concentration and its change over time is a flag for poor quality, dead-end jobs. This suggests a negative wage change effect.

In sum, we can conclude that there is evidence for a negative effect of immigrants on African-American earnings if one or more of the following predictions is confirmed: *first*, the coefficients on the share immigrant variable will be negative and significant with appropriate controls in the 1979 and 1989 tests; *second*, the share immigrant variable will account for more variation in earnings in 1989 than in 1979; and *third*, the 1980-90 change in the immigrant share variable will be negative and significant in the earnings change test, even when controlling for the immigrant share in 1980. The presence of strong immigrant wage effects will be most convincing if all three predictions are confirmed.

Tables 7a (males) and 7b (females) present the results for the 1979 and 1989 tests. Both unweighted and weighted (by NBB employment) are presented. As expected, the education and weeks worked measures are large and highly significant with the correct (positive) signs for both men and women. For men, the education coefficient indicates a 2-3 percent increase in NBB earnings with each additional year of schooling in 1979, increasing to 3.7-4.4 percent in 1989.

The public share of jobs has the expected positive and significant coefficient for male earnings in 1979 but the magnitude of the effect was small: a 10 percentage point increase in share public produced a 1-2 percent increase in mean NBB job earnings. Far more important was the dummy variable for secondary jobs, which, controlling for education, weeks worked and the other three variables, lowered mean job wages for NBB men by 14-16 percent in 1979 and by 15-19 percent in 1989.

All else equal, the relative concentration of NBB men in jobs had strongly negative effects for their own earnings: the coefficients indicate that a 10 percentage point higher NBB share was associated with 4-6 percent lower mean job earnings in 1979, increasing to 8-10 percent lower earnings in 1989.

The results for our key variable, Share Immigrant, show similar strong negative effects. A 10 percentage point higher share of recent immigrants in total male job employment is associated with 4-5 percent lower NBB male earnings. Across jobs weighted equally this negative wage effect of recent immigrants increased substantially over the decade, from 4.5 to 7.1 percent. The weighted results show no increase from 1979 to 1989, suggesting that a larger effect for jobs with smaller numbers of African-American men at the end of the decade was offset by a smaller effect in jobs where they were over represented.

Table 7b presents the results for African-American women. The results in the first row show a much higher return to education than NBB men received. This appears to be particularly so for NBB women in jobs where they are the largest in number. Across jobs weighted equally, the return was 8.5 percent, which compares to 2.5 percent for NBB men; this figure increased to 13.3 percent in 1989, compared to just 3.7 percent for men. Weighted by the number of NBB

female workers, the return to years of schooling increased from 12 percent to 15 percent over this decade.

Like the results for NBB men, all else equal, employment in a secondary job produced a strong negative effect on earnings for African-American women, but the share of public employment has little impact. Interestingly, in both the weighted and unweighted tests, the Share Public variable shows no effect in 1979 and a measurable *negative* effect in 1989. Although public sector jobs are clearly a critically important source of employment for NBB women, these results suggest that (at the level of jobs) they receive, if anything, lower pay there.

In sharp contrast to NBB men, mean job earnings for African-American women are *higher* in jobs in which their share of job employment is highest. A ten percentage point higher NBB female share was associated with 3-5 percent higher earnings in 1979 and 3-6 percent higher earnings in 1989. In terms of change over time, African-American women again appear to have benefitted most in jobs in which they were most highly represented: the weighted results show an increase from 3.2 percent to 5.9 percent over this decade.

On the effects of recent immigrants, the results for NBB women are far weaker than for their male counterparts. In 1979, only the weighted results show much impact, and the effect was *positive*: a ten percentage point higher immigrant share produces 3.3 percent higher earnings. A decade later, the impact had turned negative and this may be important (see below), but these coefficients are not very precisely measured (both the unweighted and the weighted coefficients are insignificant at the 10 percent level).

In sum, the results for the separate 1979 and 1989 tests show strong negative effects of recent immigrants on African-American earnings only for men. Comparing the findings for the

beginning and end of the decade suggests that there may have been some increase in the negative impact of recent immigrants, but the evidence from these tests is only weakly supportive of this story -- we see an increase in the negative effect of recent immigrants only in the unweighted results.

Table 8 presents the results for our wage change tests for men (253 jobs) and women (240 jobs).¹¹ The first two rows show that for both NBB male and female workers, the mean level of NBB educational attainment in jobs in 1980 had no effect on subsequent earnings growth. Given the payoff to schooling shown in Tables 7a and 7b, this is rather surprising. Strikingly different are the results for the 1979 mean NBB income in the job, the inclusion of which dramatically improves the fit of the model: the adjusted R² increases from .193 to .275 for males, and from .098 to .255 for females. We have no satisfactory explanation for the magnitude of this impact.

Change in the relative demand for workers across jobs appears to play no role in changes in NBB earnings for either men or women. Jobs with an over representation of NBB workers in 1980 had slower earnings growth, and this is particularly strong for men. But for our purposes, *the key result is that an increasing share of recent immigrant workers in jobs is strongly negatively associated with the earnings of both male and female African-Americans.* The New Immigrant coefficient in second column indicates that a ten percentage point increase in the recent immigrant share of employment is associated with about a 15 percent lower increase in earnings over this decade. Interestingly, the change in the concentration of native-born blacks in jobs has a far smaller and less precise impact on NBB male and female earnings change than the increasing

¹¹ There are fewer jobs in these tests since the constraint of at least 100 native-born black and 100 recent immigrant workers in each job had to hold for *both* 1980 and 1990.

concentration of recent immigrants. Indeed, the change in recent immigrant share has a strong negative effect in all but the first female test (which is poorly fitted, with educational attainment instead of NBB earnings).

5. Conclusion

This paper has employed jobs-level data for the New York metropolitan area, generated by aggregating individual-level Census data into detailed occupation-industry cells, to explore the changing employment structure of African-American and new immigrant workers (those arriving within the previous 15 years), the extent to which new immigrants have made in-roads into native-born black job niches, and the statistical effect of the new immigrant share of job employment on the mean job earnings of native-born black workers.

Changes in the structure of employment were examined by grouping jobs into six job contours defined by job quality (following Gittleman and Howell, 1995). Limiting ourselves to those strongly attached to the labor market (working at least 20 weeks in the previous year) male and female African-American and female new immigrant workers show substantial improvements in their employment distribution, shifting from the two “worst” (secondary) job contours toward the two “best” (independent primary) contours. New immigrant men increased their concentration in secondary jobs. While both male and female new immigrants increased their share of employment in each of the six job contours, this growth was most pronounced in the secondary contours - particularly for men.

Native-born black workers are concentrated in specific job niches within each of these job contours. We identified 12 male and 12 female African-American job niches, defined by both

overrepresentation and the absolute size of native-born black employment. As previous work has shown (Waldinger, 1996a), African-American job niches tend to have high shares of workers employed in the public sector. Foreign-born workers substantially increased their share of employment in every male and female African-American job niche. By 1990, foreign-born workers accounted for over 25 percent of the workforce with over 20 weeks of work in all 12 male niches compared to just 4 job niches in 1980. Among female job niches, at least 20 percent of employment was foreign-born in each of the 12 niches in 1990; ten years earlier there were only 5 niches with at least this foreign-born share. Particularly for female job niches, the increases corresponded to declining native-born black employment shares. But in most cases, it appears that much of the foreign-born gain was at the expense of white native-born workers who have migrated from the region.

Did the change in the ethnic mix of jobs, demonstrated both at the contour and the job niche levels, affect African-American earnings in the New York City labor market? Our results show strong negative effects for men in 1979 and 1989 and for both male and female workers in tests of earnings change over the decade. We need to do much more work to confirm these findings and to develop a good explanation for them. For example, we need to know whether workers in other minority groups are equally disadvantaged by immigrant competition, by what means recent immigrants affect the wages of other workers in a given job (e.g., lower wage increases or the replacement of higher wage workers), and whether the results for New York City hold for other major immigrant-receiving metropolitan areas.

Nevertheless, the findings in this paper challenge the results of earlier research, which have for the most part failed to find substantial earnings effects, despite the relatively large labor supply

“shocks” of immigrants to some metropolitan. Borgas (1994b) has referred to this as an “unresolved puzzle.” Our findings suggest that part of the puzzle may be resolved with more research at the detailed job level with more attention to the potential for different wage and employment effects across gender and race/ethnicity lines.

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Table 1: Native and Foreign-Born Shares of Female and Male Employment in the New York Metro Area, 1980 and 1990 (ages 18-65 with 20+ weeks worked in previous year)				
	Female		Male	
	1980	1990	1980	1990
<i>Black native-born</i>	15.7	16.3	11.8	11.6
<i>Black foreign-born</i>	6.1	9.4	4.4	7.6
<i>Immigrant w/in last 15 yrs.</i>	13.9	15.8	14.1	19.3
<i>Total foreign-born</i>	22.4	32.1	23.4	36.2
<i>Public sector share</i>	18.6	18.5	17.5	16.6

Table 2: Job Contours		
Job Contour	Characteristics of Jobs in Contour	Jobs Typical of Contour
<i>Primary Sector Jobs</i>		
1. Independent Primary (Private sector)	high earnings high share w/ health and pension benefits high cognitive skills	professional managerial high-wage sales
2. Independent Primary (Public sector)	full-time	teachers police, firefighters postal workers managers/administrators
3. Routine White-Collar	moderate wages moderate cognitive skills low strength/physical demands full time	nurses health technicians clerical workers
4. High Wage Blue-Collar	moderate/high wage low cognitive skills high share w/ health and pension benefits high share unionized high strength/physical demands	truck drivers assemblers machine operatives
<i>Secondary Sector Jobs</i>		
5. Low-Wage Blue Collar	low wages few union members benefits rare low cognitive skills high strength/physical demands	machine operatives carpenters and painters cooks and misc food occupations in retail trade
6. Low-Wage Service	poverty level wages benefits rare high share of part-time, part-year work higher education levels than in contour 5	cashiers sales in retail trade child care workers household workers

Table 3:
Distribution of Employment Across Job Contours
NY Metropolitan Area, 1980-90

Contour	Female			Male		
	1980	1990	Change	1980	1990	Change
1	16%	22%	6%	31%	31%	0
2	11	14	3	12	13	1
3	35	30	-5	11	11	0
4	4	4	0	12	12	0
5	12	12	0	22	22	0
6	22	19	-3	11	12	1

Table 4:
Distribution of Employment Across Job Contours for
Native-Born Black and Recent Immigrant Workers in the
New York Metropolitan Area, 1980-90

FEMALE	<i>Native-Born Black</i>			<i>Immigrant</i>		
Contour	1980	1990	Change	1980	1990	Change
1	9.8%	14.9%	+5.1	9.9%	14.3%	+4.4
2	12.1	17.1	+5.0	3.4	5.8	+2.4
3	32.3	30.7	-1.6	26.8	23.3	-3.5
4	6.1	5.9	-0.2	3.6	2.9	-0.7
5	17.7	15.2	-2.5	23.6	22.7	-0.9
6	21.9	16.2	-5.7	32.7	31.0	-1.7

MALE	<i>Native-Born Black</i>			<i>Immigrant</i>		
Contour	1980	1990	Change	1980	1990	Change
1	15.0%	15.9%	+.9	23.5%	22.8%	-.7
2	11.6	14.0	+2.4	4.3	5.2	+.9
3	11.5	12.4	+.9	11.9	10.3	-1.6
4	17.9	17.7	-.2	10.8	10.7	-.1
5	31.6	27.9	-3.7	35.1	35.3	+.2
6	12.3	12.1	-.2	14.3	15.7	+1.4

Table 5: African-American Female Job Niches in the New York Metro Area, 1980 and 1990

Job Niches	Black Native-Born Share of Total Female Employment in Job		Black Foreign-Born Share of Total Female Employment in Job		Total Foreign-Born Share of Total Female Employment in Job		Public Sector Share of Total Female Employment in Job	
	1980	1990	1980	1990	1980	1990	1980	1990
Occupation/Ind. Title	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Misc. Health Serv. Where: Med. Services; Hospitals	32%	29%	25%	33%	36%	52%	25%	0.22
2 Household Workers: Pvt H-Hs; Pers. Services	36	15	26	24	26	78	0	0
3 Health Technicians: Med. Services; Hospitals	29	23	15	16	25	37	24	23
4 Social, Rellig, Rec. Where: Welfare Services & Educ.	38	34	11	11	21	26	63	53
5 Postal Clerks, Mail Carriers: Transp., Com. & Pub. Util.	60	51	10	5	8	24	100	100
6 Computer Eqt. Operators: Transp., Com. & Pub. Util.	45	47	9	12	15	21	4	11
7 Child Care: Welfare Services & Educ.	31	22	5	14	12	45	75	27
8 Personal Service Workers: Welfare Services & Educ.	40	28	31	16	44	49	46	45
9 Teachers Aides: Welfare Services & Educ.	29	23	2	5	7	25	86	75
10 General Office Clerks: Med. Services & Educ.	37	31	6	12	13	27	40	39
11 General Office Clerks: Public Administration	35	49	4	8	10	21	100	100
12 General Office Clerks: Transp., Com. & Pub. Util.	33	39	7	9	14	22	18	21
Means	34.4%	30.2%	10.5%	11.0%	16.3%	31.3%	46.4%	41.2%

Table 6: African-American Male Job Niches in the New York Metro Area, 1980 and 1990

Occupation/Ind. Title	Black Native-Born Share of Total Male Employment in Job		Black Foreign-Born Share of Total Male Employment in Job		Total Foreign-Born Share of Total Male Employment in Job		Public Sector Share of Total Male Employment in Job	
	1980	1990	1980	1990	1980	1990	1980	1990
1 Bus and Taxi Drivers: Transp., Com. & Pub. Util.	21%	18%	8%	16%	28%	56%	24%	18%
2 Postal Clerks, Mail Carriers: Transp., Com. & Pub. Util.	22	25	3	6	8	25	100	100
3 Heavy Truck Drivers: Transp., Com. & Pub. Util.	28	21	2	12	10	36	11	13
4 Cooks: Pvt. H.-Hs; Personal Serv.	20	22	4	8	16	25	43	45
5 Misc. Health Service Workers: Med. Services & Hospitals	30	31	25	25	36	50	37	35
6 Guards: Business and Repair Serv.	33	34	10	19	18	34	4	4
7 Building Service Workers: Finance, Ins. & Real Est.	18	19	5	11	34	58	23	15
8 Precision Workers: Transp., Com. & Pub. Util.	26	26	4	11	14	26	55	59
9 Building Services: Business and Repair Serv.	21	15	7	10	40	60	3	5
10 Building Service Workers: Welfare Services & Educ.	22	17	4	10	20	40	55	59
11 Building Services Workers: Med. Services & Hospitals	23	26	16	22	35	60	35	28
12 Soc., Relig. & Rec Workers: Welfare Services & Educ.	29	31	5	10	14	28	66	56
Means	22.7%	22.3%	7.1%	12.0%	20.4%	36.9%	36.9%	34.9%

**Table 7a:
Determinants of African-American Male Earnings at the Job Level for
the New York Metro Area, 1979 and 1989**

Dependent variable is the log of mean native-born black wage and salary income by job
(standard errors in parentheses)

	Unweighted		Weighted	
	1979	1989	1979	1989
Black N-B Educ	.025 (.008)	.037 (.012)	.022 (.008)	.044 (.012)
Black N-B Weeks	.045 (.004)	.036 (.004)	.055 (.005)	.048 (.004)
Share Public	.0012 (.0005)	.0012 (.0006)	.0019 (.0004)	.0013 (.0005)
Secondary Dummy	-.156 (.03)	-.186 (.038)	-.139 (.027)	-.152 (.033)
Black N-B Job Share	-.0058 (.0016)	-.0094 (.0019)	-.0044 (.0014)	-.0083 (.0015)
New Immig Share	-.0045 (.0015)	-.0071 (.0017)	-.0052 (.0013)	-.0054 (.0015)
Adj R Square	.561	.508	0.667	0.632
N=	316	336	316	336
Mean Black N-B Job Earnings	12,280	23,394	12,280	23,394

Covers individuals ages 18 to 65 with at least 20 weeks worked in 1979 (1989) living in NYC, Westchester and Nassau Counties. Includes only jobs with at least 100 Native-born black workers.

Source: 5% Public Use Microdata Sample, US Census.

Table 7b:
Determinants of African-American Female Earnings at the Job Level for
the New York Metro Area, 1979 and 1989

Dependent variable is the log of mean native-born black wage and salary income by job
 (standard errors in parentheses)

	Unweighted		Weighted	
	1979	1989	1979	1989
Black N-B Educ	.085 (.012)	.133 (.014)	.12 (.01)	.151 (.012)
Black N-B Weeks	.03 (.005)	.035 (.004)	.06 (.005)	.047 (.004)
Share Public	-.0005 (.0005)	-.0011 (.0005)	.000 (.000)	-.0015 (.0004)
Secondary Dummy	-.254 (.037)	-.115 (.039)	-.172 (.031)	-.148 (.033)
Black N-B Job Share	.0048 (.0016)	.0033 (.0014)	.0032 (.0012)	.0059 (.001)
New Immig Job Share	.0018 (.0014)	-.0038 (.0018)	.0033 (.0012)	-.0015 (.0014)
Adj R Square	0.514	0.596	0.722	0.764
N=	294	285	294	285
Mean Black N-B Job Earnings	10,052	20,889	10,052	20,889

Covers individuals ages 18 to 65 with at least 20 weeks worked in 1979 (1989) living in NYC, Westchester and Nassau Counties. Includes only jobs with at least 100 Native-born black workers.

Source: 5% Public Use Microdata Sample, US Census.

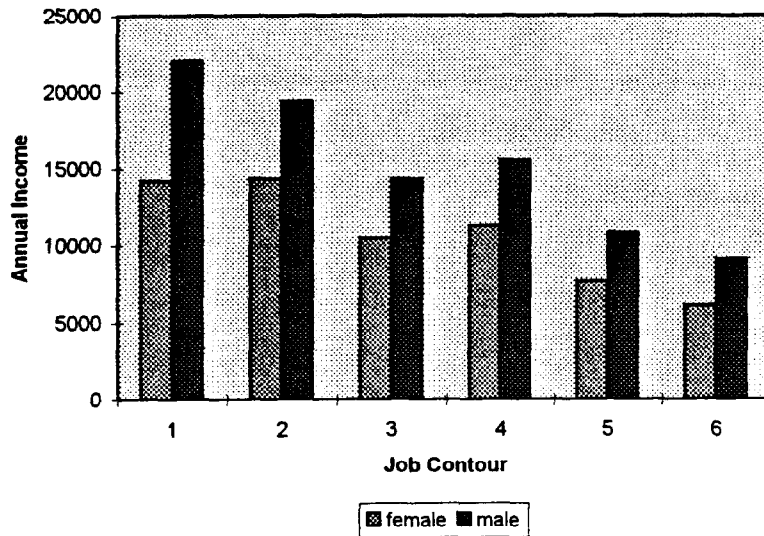
Table 8:
Determinants of the 1979-89 Change in Male and Female Black
Native-Born Earnings at the Job Level in the NY Metro Area
 (standard errors in parentheses)

	Male			Female		
	1	2	3 (weighted)	1	2	3 (weighted)
Black NB Educ 80	.009 (.024)			-.017 (.025)		
Black NB Income 79		-.678 (.129)	-.428 (.102)		-.814 (.116)	-.69 (.087)
Black NB Weeks 79-89	2.52 (.37)	1.99 (.36)	2.18 (.36)	1.65 (.393)	1.46 (.358)	1.73 (.392)
Share Public 80	.0009 (.0014)	.0029 (.001)	.0018 (.0009)	.001 (.001)	.0018 (.001)	.0004 (.0007)
Secondary Dummy	.000 (.075)	-.193 (.078)	-.128 (.058)	.019 (.077)	-.281 (.076)	-.271 (.053)
Employ Growth	.0037 (.003)	.003 (.003)	.002 (.002)	.0006 (.002)	.003 (.002)	.001 (.002)
Black NB Share 80	-.0111 (.0047)	-.0175 (.0043)	-.011 (.003)	-.0067 (.0039)	-.0068 (.0032)	-.001 (.002)
Black NB Share 80-90	-.518 (.558)	-.829 (.531)	-.672 (.473)	.64 (.426)	.451 (.388)	.124 (.307)
New Immig Share 80-90	-1.33 (.45)	-1.51 (.42)	-.804 (.343)	-.627 (.46)	-1.26 (.427)	-2.33 (.327)
Adj R Square	0.193	0.275	0.226	0.098	0.255	0.348
N =	253	253	253	240	240	240

Covers individuals ages 18 to 65 with at least 20 weeks worked in 1979 (1989) living in NYC, Westchester and Nassau Counties. Includes only jobs with at least 100 Native-born black workers in *both 1979 and 1989*.

Source: 5% Public Use Microdata Sample, US Census.

**Figure 1:
Average Income by Job Contour in 1980, By Sex**



**Figure 2:
Distribution of Employment
Across Job Contours,
By Sex, 1980**

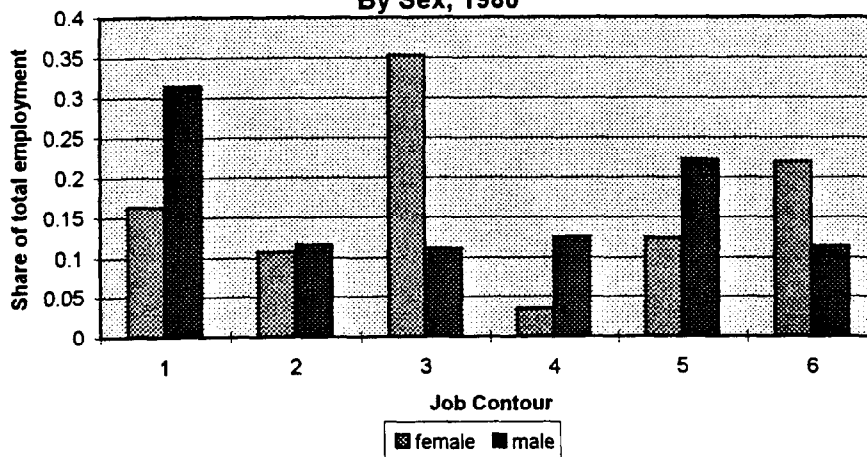


Figure 3a:
Recent Immigrants as a Share of Employment
By Job Contour, 1980 and 1990: Females



Figure 3b:
Recent Immigrants as a Share of Employment
By Job Contour, 1980 and 1990: Males

