The Labor Force Participation and Earnings Gap among African Immigrant Women in the United States

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Abstract

Research on the socioeconomic attainment of immigrants has increased in recent decades. But there is a lot to be learned in this area, especially the employment and earnings of African immigrant women in the United States. In this paper, we use the five percent Integrated Public Use Microdata Samples (IPUMS) to examine changes in size and composition of the female African immigrant population in the United States and differences in the labor force participation and earnings between black and white African immigrant women during the period of 1980-2010. The results show that the female African immigrant population increased by an annual average growth rate of 25 percent between 1980 and 2010, with a much higher growth among black female Africans (89%) than whites (6%). The racial composition shifted from a white majority (68%) in 1980 to a black majority (74%) in 2010. Multivariate analysis of the labor force participation and personal earnings showed that the white advantage echoed in previous research had disappeared in 2010 when black African women became more likely to be in the labor force participation and to earn higher income than their white counterparts, net of the effects of socio-demographic variables. Such results challenge the labor queue theory, which assumes that white people have an absolute advantage in American job market.

Introduction

The number of African immigrants in the United States has steadily increased, especially in the last four decades. However, most of the research on African immigration has focused on black African immigrant men. Yet, the acceleration of migration in the last few decades included both men and women of different races. In fact, the female African immigrant population increased at a higher rate than the male African immigrant population (about 25% versus 20% average annual growth between 1980 and 2010). Most of the increase, more than 75 percent, took place only since 1990 within a sustained economic growth in the United States and also bolstered by the introduction in 1995 of the annual immigration program called the "Diversity Visa Lottery," through which some 50,000 foreign-born people are admitted to the United States and granted permanent resident status.

More importantly, there has been a major shift in the racial composition of the female African immigrant population in the last decades, from a white majority (68%) in 1980 to a black majority (74%) in 2010. The percentage of female African immigrants who identied themselves outside the white and black racial categories declined from 9.3 in 1980 to 4.5 in 2010. These changes call for research that is mindful of the growing numbers of female African immigrants in the United States as well as their diversity. Thus, in this study we examine the socio-demographic characteristics of black and white African immigrant women, focusing on their labor force participation and earnings.

Following the queuing theory, which indicates that American employers tend to prefer white workers over black ones (Model 1997; Bisping and Fain 2005; Hodge 1973; Lieberson 1980), this research's main question is: What impact, if any, does the race of the female African immigrant has on her chance of employment and earnings? In other words, do black African females have less chance of being in the labor force than white African females? Further, is there a significant racial difference in earnings between these two groups of immigrant women? These questions are answered through the analysis of the four decennial census data (1980, 1990, 2000, and 2010).

Background and rational

The current global economic crisis and especially the United States recession may have heightened the challenges experienced by African immigrants in the United States and may have further adversely affected available opportunities to them. In 23 of the past 25 years, the United States economy had steadily grown. This economic prosperity attracted new immigrants (Papademetriou and Terrazas 2009). Historically, during a booming economic climate, countries that have sustained economic growth usually attract record numbers of new immigrants. In most African countries, emigration has been also exacerbated by a combination of push factors, including mismanagement of economic affairs and corruption of political regimes, civil wars, and rising unemployment and the lure of employment and better income in the developed countries.

In the past, France, Great Britain, and Belgium were the top destinations of Africans seeking better opportunities outside their continent (Lobo 2006). Today, the United States is the preferred destination of African emigrants. There has been a substantial increase in the number of African immigrants in the United States in the past decades. According to the U.S. Homeland Security's Office of Immigration Statistics, the number of Africans who obtained legal permantent resident status increased from 36,578 in 1999 to 105,915 in 2008, representing an average annual growth of 21.06 percent (United States, Department of Homeland Security 2009: Table 3).

The Diversity Visa program commonly known as Visa Lottery established by the U.S. Congress in early 1990s has been the major contributing factor of the increase in number of Africans in the United States. For example, 18,000 of the 105,915 African immigrants (19%) who obtained legal permant resident status in 2008 were DV receipients (United States, Department of Homeland Security 2009: Table 10). All African countries are eligible, but the number of applicants varies from country to country. For example, according to the U.S. Department of State's immigration records, African countries with most DV applicants in 2008 were Nigeria (684,735 entrants), Ethiopia (518,877 entrants), Egypt (291,220 entrants), Ghana (290,697 entrants), and Morocco (174,361 entrants) (United States, Department of State 2011a). These same countries received the highest numbers of DV visas in 2008 (8,773 for Nigeria; 5,914 for Ghana; 5,241 for Ethiopia; 5,017 for Morocco, and 4,392 for Egypt) (United States, Department of State, 2011b). These top DV countries are also the major countries of origin for female African immigrants. For the period of 1980-2008, the majority of white female African immigrants came from Egypt, South Africa, and Morocco; whereas most black female African immigrants came from Nigeria, Ethiopia, and Ghana.

A major concern for policy makers is the economic position of these new immigrants in terms of their labor force participation and earnings. Yet, most observers have very limited knowledge of the volume and skills of this unique group of immigrants. As a group, their uniqueness stems from their racial composition, as well as their relatively small number in the American population as some media outlets have noted, "African immigrants and their offspring generally fly under the radar of average Americans" (Kenyan Observer 2008). As shown above, African immigrants represent a racially and culturally diverse group of people; originating from different countries.

Few studies that have examined female African immigrants in the United States found that black African women were more likely to be in the labor force than white African immigrants (Djamba and Bean 1999). This racial difference remained significant even after controlling for the effects of other socio-demographic variables. In a more recent study of black female immigrants, Corra and Kimuna (2009) found that African and French Caribbean women had a significant disadvantage in earnings as compared to native black women and other female immigrants. Generally, other research found that immigrants with higher education, more work experience, and better command of the host country's language performed better economically (Chiswick and Miller 2002).

Other studies have noted the variations among groups in terms of the economic cost of immigration (Adsera and Chiswick 2006). Others have pointed to the country of origin as indicative of socio-cultural resources and specific structural and ecological factors that may either hinder or enhance socio-economic achievement in the host country (Willis and Yeoh 2000). Variations in economic outcomes among different foreign-born groups also derive from the treatment and sympathy the groups receive from the host country (Poston 1994). Further arguments have cited areas into which the immigrants settle as playing an important role in affecting occupational and earning patterns by exposing the immigrants to distinctive labor market conditions and opportunities (Greenlees and Saenz 1999). What is the situation today for female African immigrants in the United States?

This study extends research on African migration by examining both the labor force participation and personal income of African women, with special focus on racial effect. Due to gender segregation, nature of employment and earnings, we focus only on women in this study and will examine the situation of men elsewhere.

Theoretical perspectives and research hypotheses

While the study of migration has become a major focus in social research, African immigration to the United States has received limited attention. The few studies that have examined African emigration look primarily at negative effects of such spatial mobility on countries of origin (UNECA 2000), the conditions that resulted in immigration to the United States (Worth and Asher 2004), and basic socio-demographic characteristics of black African born populations in the United States (Logan and Deane 2003). Only a limited number of scholars have attempted to study the insertion of African immigrants in the American job market (Djamba 1999a, 1999b; Dodoo 1997, 1991a; Kposowa 2002) in general and black female immigrants in the United States and their earnings outcomes (Corra and Kimuna 2009).

Like other immigrants, African born populations face challenges and opportunities when they arrive in the United States. Their success or failure to adapt to the new environment depends on their pre-migration cultural legacies, the selectivity of migration, and prevailing job market practices at the place of destination (Model 1997). We discuss these three perspectives below in order to construct a theoretical framework that helps us understand female African immigrants' experiences in the American job market.

Under the pre-migration cultural legacies, the observed differences in labor force conditions and earnings are said to reflect each group's particular attitudes toward employment, schooling, family, kinship, and migration itself (Foner 1997; Sowell 1994). While the effects of some of the cultural legacy variables (e.g. education) can be statistically controlled, others such as social norms and values that denote family priorities are difficult to measure.

The second explanation about the differences in labor force participation and earnings between African immigrants and other groups can be found in the selectivity of migration argument. However, because this study is limited to immigrants who came from the African continent, the selectivity hypothesis is not relevant in this case. Nonetheless, it is well known that people who migrate are usually among the most talented and ambitious (Kanbur and Rapoport 2005). As such, migrants are expected to have better labor market skills than natives (Chiswick 1979a).

The third type of explanation is based on the queuing theory, which refers to the Aamount of discrimination or favoritism particular groups encounter" (Model 1997:540). According to this theory, employers are said to follow a preference ordering in selecting their workforce (Bisping and Fain 2005; Hodge 1973; Lieberson 1980). "In a race-conscious society like the United States, employers rank entire groups of people in terms of their ethnic and racial characteristics" (Waldinger 1996:3). Within the labor queue model, Whites are at the top of the queue, followed by Asians, Hispanics, and Blacks. Is the queuing explanation still valid today? Does it hold for African immigrant women?

This study focuses on the labor queue theory, which posits that white African immigrants are expected to have a racial advantage in the United States job market. The "triple jeopardy" factor (being female, foreign-born, and black) is expected to be found among black female African immigrants than white female African immigrants. Thus, following the principle of labor queue theory, according to which whites are advantaged in the United States labor market, we expect white African immigrant women to have higher labor force participation rate and higher earnings than black African immigrant women.

Data and methods

This study is based on the last four decennial census data (1980, 1990, 2000, and 2010). These data were drawn from the five percent Integrated Public Use Microdata Series (IPUMS). IPUMS is a collection of microdata, where each record is a person with all the characteristics numerically coded (Ruggles, Alexander, Genadek, Goeken, Schroeder, & Sobek 2010). Using the IPUMS's data extraction system, we selected the samples and variables needed for this research.

These data were used to show the trends and changing composition of the female population of African origin in the United States in the last four decades. More analyses were conducted on the working age population to determine the importance of race through the labor queue theory according to which white African immigrants will have a better chance of employment and higher earnings than blacks.

Definition of variables

Dependent variables

There are two dependent variables: (1) labor force participation and (2) personal income. Labor force was measured by a dummy variable which indicates whether the person was working at the time of the census or not. To use the census definition, *working* is defined here as being at work or having a job but not presently at work. Personal income was measured as the respondent's annual income from the previous year in U.S. dollars. The analyses of labor force participation and personal income are limited to individuals aged 16-64 years, which corresponds to the official working age in the United States.

Independent variables

There are two sets of independent variables: (1) race, which divides the study population into three racial categories (black, white, and other), and (2) the socio-demographic variables, including the duration of immigration for immigrants.

The "black" category is for persons born in Africa and who identified themselves as black on the census questionnaire. The "white" category includes all persons born in Africa and who identified themselves as white on the census questionnaire. The third category, which includes all people whose races were not recorded either as black or white, was classified as "other." The latter represents about five percent of female African immigrant population in the United States in 2010. Focusing on the labor queue theory, only the two main racial categories (black and white) are analyzed in detail in this paper.

Socio-demographic characteristics

Most work in the area of labor force participation follows the functionalist and human capital frameworks which suggest that family and individual resources determine skills, and skills increase the chance of occupational opportunity and earnings. This reasoning constitutes the benchmark of most current theories of labor force differences. In fact, many of the cultural and selectivity of migration assumptions are based on the influence of human capital variables on individuals' labor force participation and earnings. In light of the above theoretical framework and past studies on socio-economic conditions of immigrants (Tienda and Singer 1995; Dodoo 1991a-c; Dodoo 1997; Corra and Kimuna 2009), we identified several variables which are potential determinants of labor force participation and earnings.

We measured human capital through the following variables: *age, education*, and *English language proficiency*. Age and education/schooling are frequently cited as determinants of immigrants' labor market participation (Greenlees and Saenz 1999). As noted above, we limited the analysis of labor force participation to persons aged 16-64 years.

Education was coded in years of schooling as follows: 0-8 years, 9-12 years, and 13 years and more. This educational classification is preferred to that of level of schooling (e.g., primary, secondary, and higher) because of differences in meaning across

countries. We also included the *school enrollment* variable to control for the impact of the enrollment status on labor force participation and earnings. Although the IMPUS data do not include visa status information, the school enrollment variable can serve as a proxy to legal employment authorization if one assumes that many students - particularly foreign born ones - may not be allowed to work in the United States. *English proficiency* is an important variable of employment and overall integration into the American society. Chiswick (1991) and Borjas (1985) both argue that command of English can represent a large difference in earnings. This variable has the following categories: speaks only English; very good, good, not good.

Other important variables included in this study are *sex* and *marital status*. But due to sex differences in age of entry into labor force and other cultural meanings that may be associated with gender, we focus only on women in this study and will examine the men's situation in a separate study. Also of interest are duration of stay and place of residence. These migration variables are *year of immigration* and *region of residence* in the United States. Year of immigration was constructed to test the assumption that immigrants tend to complete their integration/assimilation process within 10-15 years (Kalmijn 1996). Further, Chiswick (1979b) mentions that as time passes in the host country, immigrants acquire knowledge of customs and language relevant to jobs. This argument suggests that the longer an immigrant is in the United States the greater her possibilities of participating in the labor force and earning a high wage.

The residence variable was used to control for possible geographic effects which may increase or otherwise decrease the likelihood of entering into the labor force and of earning an income as a result of available local market opportunities. Following the classification used in previous research (Djamba and Bean 1999), four regions are defined in this study: Northeast, Midwest, South, and West. Given the higher percentage of native black population in the South, it is expected that the majority of black African immigrant women will reside in that region. However, because of historical racial discrimination, black African immigrant women's prospects for labor force participation and earnings may be lower in the South than elsewhere in the nation.

Analytical procedures

Two types of analyses were performed: descriptive and multivariate. In the descriptive part, we examined the changes in the size and composition the African immigrant female population, as well as their socio-demographic characteristics during the four periods considered in this study. The bivariate differences in labor force partipation and average earnings were also anlyzed. The second part of the analysis was limited to persons age 16-64 and focused on the racial differences in labor force participation and earnings; controlling for the effects of the socio-demographic variables. More specifically, we estimated the probability of being in labor force using logistic regression models. Because personal earning was measured in dollars, we used multiple regression equations to determine the association between earning and socio-demographic variables of interest.

The following two questions are examined using the 5 percent IPUMS data from the last four censuses. The questions are, "Between black and white African women, which racial group has the best chance of employment and higher personal income in the United States"? "What effects, if any, do their social and human capital factors have on their chance of employment and personal income (earnings)"? These questions are examined below.

Results

Changes in size and composition of female African Immigrants

Data in Table 1 show that there were about 91,620 female African immigrants living in the United States in 1980. This number increased to 158,272 in 1990; 406,142 in 2000; and 782,390 in 2010. In terms of growth rate, the black female African immigrant population increased by an average annual growth of 89.3 percent between 1980 and 2010; the corresponding figures for white female African immigrants was 5.5 percent. The "other" racial group category increased by 11.7 percent during the same period.

<< Table 1 about here >>

In addition, there have been significant changes in the composition of the female African immigrant population. For example, in 1980 the majority of female African immigrants were white (68.0%); but since 2000, blacks have outnumbered whites. By 2010, this racial makeup shifted to 73.9 percent black, 21.2 percent white, and the remaining 4.9 percent for those female African immigrants whose racial identities were not specified (see Table 1).

Socio-demographic characteristics of female African immigrants

Data in Table 2 show that, in all the four periods considered here, white African female immigrants were on average older than black African female immigrants. In addition, white African female immigrants had a longer tradition of immigration to the United States as compared to their black counterparts. For example, whereas only about 5 in 10 black African immigrant women have lived in the United States for more than 9 years, the corresponding figure for white African women was 8 in 10 according to the 2010 census data.

Similar racial differences were found in the educational attainment, school enrollment, and marriage. Except in 1980, where black African immigrant women had higher education than black African immigrant women. The higher educational attainment among white African immigrant women explains in part their lower percentage of school enrollment. In other words, the racial differences in school enrollment and year of schooling observed in Table 2 suggests that many black African women may be coming to the United States as students or may decide to go to school once they are here in order to prepare themselves for better employment opportunities. Moreover, the fact that the majority of white African immigrant women were married at

each of the four periods considered in this study suggests that there are some differences in reasons for migration. This is more evident in 2010 where white female African immigrants were apparently more likely to have come with their husbands; or if they did not arrive in the U.S. as married women, then it can be speculated that their white race made it easier for them to assimilate through marriage, hence the high percentage in marital status. In contrast, most black African immigrant women probably came alone; in addition, unlike white African women, black African women were not able to assimilate much through marriage given the high sex imbalance that exists in the black population in the United States.

<< Table 2 about here >>

As for other variables across the four periods, the percentage of African immigrant women who had a good command of the English language was high. Nearly 90 percent of both white and black African immigrant women said they spoke English well, very well, or as their native language (speaks only English). There have been some interesting shifts in region of residence. As hypothesized, the South has been the top region of residence for black African immigrant women. About 33 percent of all black immigrant women who were living in the United States in 1980 were in the South; the corresponding figure for white African immigrant women was 25.5 percent. The South has even become a preferred region for black African immigrant women in the subsequent periods. In contrast, Northeast was the region of choice for white African immigrant women in 1980 and 1990; about 32 percent of them lived there during these two periods. However, the South became the top region of residence also for white African immigrant women in 2000 and 2010.

What are the prospects of employment and earnings for black and white African immigrant women in the United States? The descriptive statistics in Table 2 show that although the majority of African immigrant women were in the labor force throughout the period considered here, there were some noticeable racial differences. In 1980, the percent of labor force participants was higher for white African immigrant women (54.1%) than for black (51.9%). This pattern has shifted since 1990 where black African immigrant women became more represented in labor force than their white counterparts.

Yet, when it comes to earnings, white African immigrant women had a significant advantage over black African immigrant women. In all the four periods in Table 2, the average annual income of white African immigrant women was significantly higher than that of black African immigrant women. How much of these differences account for differences in human capital factors? What role, if any, does race play?

Level and determinants of labor force participation

What chances do these populations have, especially the black African immigrant women in the American labor market? One study that examined the labor force participation of African immigrant women in 1990 found significant racial differences, with black African women being more likely to be in labor force than white women

(Djamba and Bean, 1999). How much has changed before and after that period? What role do individual characteristics play?

Two models are presented for each of the four years. Model I contains race, age, education, school enrollment, marital status, duration of immigration, English proficiency, and region of residence. Model II includes all the variables in Model I plus two interactions. The first interaction is for marriage and race; the second one is for school enrollment and race. The interaction terms were used to test the following two conditional hypotheses:

1. First, the higher labor force participation rate among black women is due to their lower rate of marriage. In other words, more black women are working out of necessity to support themselves and their families.
2. Second, school enrollment is expected to be a deterrent factor of labor force participation. Therefore, we expect women who are not in school to be more likely in labor force than their counterparts who are still in school.

The same interaction terms were also included in the regression equations of earnings to see if the observed racial differences in personal income are mediated by group differences in marriage and school enrollment.

Data in Table 3 show that black African immigrant women were more likely to be in the labor force than white immigrant women, net of the effects of other covariates. This is consistent in all models. In all Model Is in this table, black African immigrant women were significantly more likely to be in the labor force than white African immigrant women. These results are not consistent with the labor queue theory which posits a white people advantage in the American labor force (Fernandez and Mors 2008; Model 1997). This finding is consistent with results of a 1999 study, which showed a lower labor force participation rate among white African immigrants compared to black African immigrants (Djamba and Bean 1998).

What do we make of such conflicting labor queue theory findings? One possible explanation is that black African immigrant women may be working because they have to, whereas white African immigrant women work by choice. This explanation suggests that white African women who move to the United States have enough income and other resources from their families, so they can stay home and take care of their children and spouses. This situation will be discussed further when we examine the effects of interaction terms.

<< Table 3 about here >>

What are the effects of other variables in Table 3? The effects of all variables were consistent throughout the period under study (1980-2010). For example, having higher educational attainment and being out of school significantly increase women's chances of employment. In addition, age has a reversed U-shaped relationship with labor force participation. Similar to Djamba and Bean (1999) study, our results show that

marriage was associated with a reduced chance of labor force participation for women. Apparently, despite increased female employment, married women tend to stay home.

As for language, women with better command of English were more likely to be in the labor force than those with limited English ability, though that association was not linear for all the four periods. The coefficients for the duration of immigration show that immigrants who have been in the country for more than 4 years had a better chance of being in the labor force than the newcomers. The fact that those who lived in the United States for 5-9 years were also significantly more likely to be in labor force than newly arrived immigrants suggests that the work assimilation period for African immigrants is shorter than the 10-15 year period echoed elsewhere (Kalmijn 1996).

We also found significant differences in labor force participation by region of residence. The Northeast was not a good region of residence for African immigrant women in terms of labor force participation. For all the 4 periods considered in this study, African immigrant women who resided in the Northeast had a lower chance of being in the labor force compared to those residing in the South. However, that regional effect has become insignificant in 2010.

Marriage and school enrollment can be race specific conditions that increase or otherwise decrease the likelihood of being in the labor force. Therefore, we examined the interactions between race and marital status and race and school enrollment in Models II. The results are significant only for the period of 1980-2000. For that period, the interaction between race and marital status indicate that marriage increased black immigrant women's likelihood of being in labor force, whereas it decreased white immigrant women's. As for the interaction between race and school enrollment, the data in Table 2 show that black immigrant women who were enrolled in school were significantly less likely to be in labor force than those who were not in school, except in 2000 when the association was reversed. For white African immigrant women, school enrollment consistently reduced their chance of being in the labor force for all the four periods (1980, 1990. 2000, and 2010).

Group differences in earnings

Access to employment is only one of several factors of economic status. The following are results on income or personal earnings of African immigrant women in the United States. Data in Table 2 showed white African immigrant women earned more than black African immigrant women. In 1980 white African immigrant women made on average $5,514 per year compared to $3,918 for black African immigrant women. The gap widened in the subsequent years; the 2000 figures show average annual incomes of $23,676 and $17,784 for white and black African immigrant women respectively [Since no income information is available in the 2010 census, we will use the 2010 American Community Survey to analyze earnings in due course]. How much are the variations in earnings due to socio-demographic characteristics? We examine this question in the next section.

<< Table 4 about here >>

Data in Table 4 show the results of multivariate regression analysis of annual personal income. Results show that the racial effect has changed over the years. Considering the additive models (Model Is), it appears that the labor queue hypothesis was confirmed only in 1980 and 1990, where white African immigrant women earned more than their black counterparts, net of the effects of other variables. The racial effect remained significant even when the interaction terms were added into the regression equations. The coefficients of the two interaction terms were positive and significant suggesting that black African immigrant women who were married had to earn more income to support themselves and their families. Similarly, those black African immigrant women who were in school may have had to pay their own tuition, which may explain higher earnings among black African immigrant women than their white counterparts throughout the four-year period.

The white advantage disappeared in 2000. As shown in Model I of 2000, there was no significant difference in earning between white and black African immigrant women, once their socio-demographic characteristics were taken into consideration. Moreover, the fact that the standardized racial coefficient was virtually zero suggests that in that year, differences in earnings among African immigrant women were due to their human capital factors, not race. The analysis of the 2010 period will be performed later using the 2010 American Community Survey because no income/earnings information is available in the 2010 census.

With the exception of region of residence, which was not statistically significant in 1980, all other variables were significantly associated with earnings during all the periods examined in this study. Education and age were positively and significantly associated with earnings. Clearly, education is a key positive factor of earnings. During all four periods examined here, more educated women earned substantially more than the less educated ones. Age was positively associated with earnings. This result suggests the effect of work experience which translates into better earnings.

In contrast, marriage was associated with lower earnings for African immigrant women in general. However, when interaction between race and marital status was included in the regression equation, we found that the negative effect of marriage is mostly for white African immigrant women. For black African immigrant women, being married meant more earnings probably because they have to complement their husbands' income. Similarly, school enrollment was negatively associated with earnings in general. Yet, the analysis of the interaction effect between race and school enrollment showed that black African immigrant women who were in school earned higher income than their white counterparts with the same school enrollment status.

Unlike labor force participation, earning is mostly negatively associated with the duration of residence in the United States. Those who entered the country in recent years (< 5 years) earned more than earlier immigrants, although the relationship is not all

linear. In terms of language, the results in Table 4 show that women's linguistic skills were positively associated with earnings.

The effect of region of residence shifted over time. In 1980, there was no significant effect at all. However in 1990, African immigrant women who lived in the Midwest earned significantly less than their counterparts who lived in the South; those in Northeast earned significantly more. No significant difference was observed between those in the South and their counterparts in the West. In 2000, African immigrant women who lived in the South earned significantly less than their counterparts who were living elsewhere in the country. The top earners were those in the West followed by Northeast and then Midwest residents. In the next few months, we will add the results for the year 2010 from the 2010 American Community Survey data.

However, these preliminary results show that while the impact of human capital variables such as education, age, duration of immigration, and English proficiency remain somewhat consistent throughout the period examined in this study, that of race and region of residence have significantly changed.

Conclusion

The experience of female African immigrants to the United States has been ignored in discussions of economic outcomes, mainly because they have been traditionally viewed as 'dependants', moving as wives, mothers or daughters of male migrants. This study highlights the changes in size and composition of the female African immigrant population in the United States during the periods of 1980 to 2010, and differences in the labor force participation and earnings between black and white African immigrant women aged 16-64 years. The results show that the number of female African immigrants in the United States continues to increase and the racial composition is constantly changing.

How do these African immigrant women adapt into the American job market? This question was examined through the analysis of the labor force participation and earnings. The guiding framework was the queuing theory according to which whites have a net advantage in the American job market. The results showed significant racial differences, but not along the labor queuing theory. Instead, we found that black African immigrant women were more likely to be in labor force than their white counterparts. Moreover, the racial difference in earnings had also shifted from white immigrant women advantage in 1980 and 1990 to black immigrant women advantage in 2010, although we are still analyzing the data for that last period.

Since these results were statistically significant after controlling for socio-demographic characteristics, it is possible that there are other factors not examined here that may explain such differences in labor force participation and earnings. For example, it is possible that white immigrant women have other resources either from their families and/or other institutions (scholarships for those in school) to live on and do not have to work compared to black African immigrant women who apparently lack such resources.

Another possible explanation is that U.S. employers may have become more acquainted with black immigrant women's work habits and this may have reduced racial stereotypes that were the core of the labor queue theory.

However, without data on the sources and levels of income and employers' perception of black immigrant women's skills and work habits, it is not possible to fully tease out these racial differences in labor force participation and earnings. The effects of human capital variables were consistent with findings of previous studies (Djamba and Bean 1999; Corra and Kimuna 2009). For example, education, age, and English proficiency were positively associated with labor force participation and earnings. In contrast, being married reduced the likelihood of being in the labor force and was also associated with lower earnings for white African immigrant women; but, marriage had positive outcomes for black African immigrant women. Similarly, school enrollment was associated with negative employment and earnings for white African immigrant women, whereas it had positive effects on both variables for black African immigrant women.

Again, this racial difference may indicate the dual-earning couples among black African immigrant women who have to work to support their families, whereas white African immigrant women who work only on a part-time basis or just to earn supplemental income for themselves. Similarly, the positive effect of the school enrollment and race interaction terms suggests that black African immigrant women who were in school probably had to work to pay their tuitions and eventually to support their families. On the other hand, white women who were in school may have had scholarships or other support systems that helped them devote more time to learning and less time to earning a living while in school.

Time in the United States was positively associated with the chance of employment but lower earnings. The effect of region of residence changed overtime. Results reported here show that human capital characteristics are good predictors of the labor force participation and earnings, but other characteristics such as race and place of residence are still relevant though changing overtime. The labor queue hypothesis, which suggests that whites are advantaged in the job market was only partially supported in this immigration study for earnings in 1980 and 1990. By 2010, black African immigrant women were more likely to be in the labor force and earned higher incomes than their white counterparts.

Certainly, other variables not examined in this study, such as hourly earnings, other sources of income, and family size could shed more light on the racial differences in labor force participation and earnings uncovered here. Even in the absence of these unobserved factors, the results of this study suggest that the racial impact on American job market has changed overtime as more people of different origins work and live near native populations. This could also be due to employers becoming more acquainted with various racial immigrant groups. More research is needed to understand these changes. Another interesting question to explore in future research is whether race has the same impact on black and white African immigrants' labor force participation and earnings in Europe and elsewhere as it does in the United States.

References

Adsera, A., & Chiswick, B. (2006). Divergent patterns in immigrant earnings across European destinations. In C. A. Parsons and T. M. Smeeding (Eds.), *Immigration and the transformation of Europe* (pp. 85-110). Cambridge , UK: Cambridge University Press.

Bisping, T.O., & Fain, J. R. (2005). The current state of the labor queue: National and regional evidence. *Journal of Labor Research*, 26(2), 351-366.

Borjas, G. J. (1985). Assimilation, changes in cohort quality, and the earnings of immigrants. *Journal of Labor Economics*, 3(4), 462-489

Chiswick, B. R. (1991). Speaking, reading, and earnings among low skilled immigrants. *Journal of Labor Economics*, 4(2), 149–170.

Chiswick, B. (1979a). The economic progress of immigrants: Some apparently universal patterns. In W. Fellner (Ed.) *Contemporary economic problems* (pp. 357-399). Washington, DC: The American Enterprise Institute.

Chiswick, B. R. (1979b). The effect of Americanization on the earnings of the foreign born men. *Journal of Political Economics*, 86(5), 897–921.

Chiswick, B., & Miller, P. W. (2002). Immigrant earnings: Language skills, linguistic concentrations and the business cycle. *Journal of Population Economics*, 15, 31-57.

Corra, M., & Kimuna, S. R. (2009). Double jeopardy? Female African and Caribbean immigrants in the United States. *Journal of Ethnic and Migration Studies*, 35(6), 1015-1035.

Djamba, Y., & Bean, F. (1998). African Americans, African immigrants, and Black immigrants from countries south of the United States: Toward an afro-labor queue. University of Texas, Austin, Population Research Center. Unpublished paper.

Djamba, Y., & Bean, F. (1999). Black and white African women in America: Demographic profile and socio-economic assimilation. *African Population Studies*, 14 (1), 25-33.

Djamba, Y. (1999a). African migration to the United States: Volumes, trends, and employment opportunities. *The African Population in the 21st Century*, 2, 471-480.

Djamba, Y. (1999b). African immigrants in the United States: A socio-demographic profile in comparison to native blacks. *Journal of Asian and African Studies*, 34, 210-215.

Dodoo, F. N. (1997). AAssimilation differences among Africans in America.@ *Social Forces*, 76, 527-546.

Dodoo, F. N. (1991a). Earnings differences among blacks in America. *Social Science Research*, 20, 93-108.

Dodoo, F. N. (1991b). Immigrant and native black workers' labor force participation in the United States. *National Journal of Sociology*, 5, 1-17.

Dodoo, F. N. (1991c). Blacks and earnings in New York State. *Sociological Spectrum*, 11, 203-12.

Fernandez, R.M., & Mors, M.L. (2008). Competing for jobs: Labor queues and gender sorting in the hiring process. *Social Science Research*, 37(4), 1061-1080.

Foner, N. (1997). The immigrant family: Cultural legacies and cultural changes. *International Management Review,* 31(4), 0961-0974.

Greenlees, C. S., & Saenz, R. (1999). Determinants of employment of recently arrived Mexican Immigrant wives. *International Migration Review*, 33(2), 354-377.

Harrison, L. (1992). *Who Prospers*? New York: Basic Books.

Hodge, R. W. (1973). Toward a theory of racial differences in employment. *Social Forces*, 52(1), 16-31.

Kalmijn, M. (1996). The socioeconomic assimilation of Caribbean American Blacks. *Social Forces*, 74, 911-930.

Kanbur, R., & Rapoport, H. (2005). Migration selectivity and the evolution of spatial inequality. *Journal of Economic Geography,* 5 (1), 43-57.

Kenyan Observer. (2008). The Obama generation: The emergence of Africans in America.

Kposowa, A. J. (2002). Human capital and the performance of African immigrants in the U.S. Labor Market. *The Western Journal of Black Studies*, 26(3), 175-183.

Lieberson, S. (1980). *A piece of the pie: Black and white immigrants* Since 1880. Berkeley: University of California Press.

Lobo, A. P. (2006). Unintended consequences: Liberalized U.S. immigration law and the African brain drain. In *The New African Diaspora in North America* (pp. 189-206). Edited by K. Konadu-Agyemang, B. K. Takyi, and J. A. Arthur. Lanham, MD: Lexington Books.

Logan, J. R., & Deane, G. (2003). *Black diversity in metropolitan America. A Study Report*. University of Albany: Lewis Mumford Center for Comparative Urban and Regional Research.

Model, S. (1997). An occupational tale of two cities: Minorities in London and New York. *Demography*, 34(4), 539-550.

Model, S. (1991). Caribbean immigrants: A black success story? *International Migration Review,* 25, 248-276.

Papademetriou, D.G., & Terrazas, A. (2009). *Immigrants in the United States and the current economic crisis*. Washington DC: Migration Policy Institute. April 1, 2009.

Poston, D. L. Jr. (1994). Patterns of economic attainment of foreign-born male workers in the United States. *International Migration Review,* 28(3), 478-500.

Ruggles, S. J., Alexander, T., Genadek,K., Goeken, R., Schroeder, M., & Sobek, M. (2010). Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota.

Sowell, T. (1994). *Race and culture: A world view*. New York: Basic Books.

Tienda, M., & Singer, A. (1995). Wage mobility of undocumented workers in the United States. *International Migration Review*, 29(1), 112-138.

United Nations Economic Commission for Africa (UNECA). (2000). *Brain drain: The scope and Africa's responses*. International Organization for Migration.

United States, Department of Homeland Security. (2009). *Yearbook of immigration statistics: 2008*. Washington, D.C.: U.S. Department of Homeland Security, Office of Immigration Statistics.

United States, Department of State. (2011a). Total number of DV lottery applicants by

country. Retrieved from http://www.travel.state.gov/pdf/TotalDVApplicantsbyCountry.pdf on May 18, 2011.

United States, Department of State. (2011b). Total number of DV lottery applicants by country. Retrieved from http://travel.state.gov/visa/immigrants/types/types_1317.html on May 18, 2011.

Waldinger, R. (1996). *Still the promised city: African-Americans and new immigrants in postindustrial New York*. Cambridge: Harvard University Press.

Willis, K., & Yeoh, B. (2000). Introduction. In K. Willis and B. Yeoh (Eds.), *Gender and migration*. Cheltenham and Northampton: Edward Elgar.

Worth, R., & Asher, R. (2004). *Africans in America*. New York: Facts on File, Inc.

Table 1. Distribution of the Female African Immigrant Population by Race, 1980-2010

	Black		White		Other		Total	
Year	N	%	N	%	N	%	N	%
1980	20,800	22.7	62,260	68.0	8,560	9.3	91,620	100.0
1990	69,537	43.9	75,564	47.7	13,171	8.3	158,272	100.0
2000	234,963	57.9	106,724	26.3	64,455	15.9	406,142	100.0
2010	578,228	73.9	165,485	21.2	38,677	4.9	782,390	100.0
Annual Growth Rate								
Between 1980 and 2010 (%)	89.3		5.5		11.7		25.1	

Source: Five percent IPUMS data sets.

Table 2. Percentage Distribution of Black and White African Immigrant Women by Selected Socio-demographic Characteristics

	1980		1990		2000		2010	
CHARACTERISTICS	Black	White	Black	White	Black	White	Black	White
AGE GROUP								
16-24	34.0	23.0	20.5	15.3	19.6	10.5	17.0	10.0
25-34	50.0	30.1	50.4	30.9	32.0	25.0	20.1	20.1
35-44	11.5	22.4	22.3	26.7	30.8	29.3	27.0	26.8
45-64	4.5	24.4	6.8	27.2	17.0	35.2	26.4	43.1
EDUCATION								
0-8 years	5.3	8.3	5.3	3.4	6.2	2.4	9.7	4.3
9-12	38.2	44.3	30.0	30.0	42.3	29.2	30.3	24.8
13+	58.4	47.3	64.8	66.6	51.5	68.4	60.1	70.9
ENROLLMENT								
Not in school	54.4	82.5	63.1	80.2	70.8	86.5	74.5	88.0
In school	45.6	17.5	36.9	19.8	29.2	13.5	25.5	12.0
MARITAL STATUS								
Not married	43.2	31.3	47.4	32.3	47.7	31.2	50.8	33.7
Married	56.8	68.7	52.6	67.7	52.3	68.8	49.2	66.3
DURATION OF IMMIGRATION								
Less than 5 years	54.6	31.5	37.9	21.2	35.8	20.9	22.2	14.5
5-9 years	38.2	33.4	47.4	30.7	28.7	16.2	25.8	12.3
10+ years	7.2	35.1	14.8	48.1	35.5	62.9	52.0	73.2
ENGLISH PROFICIENCY								
Speaks only English	22.7	37.7	20.7	41.9	20.3	40.9	18.5	38.5
Speaks very well	52.9	36.7	55.0	38.1	53.8	39.1	48.1	35.3
Speaks well	20.1	17.1	17.8	14.6	17.8	14.1	20.1	15.5
Not well	4.4	8.5	6.5	5.4	8.0	5.9	13.3	10.8
REGION								
Northeast	34.7	31.7	29.9	32.0	28.5	28.7	23.5	27.5
Midwest	19.4	14.0	11.2	10.8	16.3	12.6	18.7	12.9
South	33.3	25.5	40.2	26.9	41.5	30.3	42.7	31.4
West	12.7	28.8	18.7	30.3	13.7	28.5	15.1	28.2

Table 2. Continued.

	1980		1990		2000		2010	
CHARACTERISTICS	Black	White	Black	White	Black	White	Black	White
LABOR FORCE PARTICIPATION								
Not in labor force	48.1	45.9	32.6	36.5	32.0	38.6	28.1	44.7
In labor force	51.9	54.1	67.4	63.5	68.0	61.4	71.9	55.3
AVERAGE ANNUAL PERSONAL INCOME	3,917.63	5,514.37	10,538.06	13,650.14	17,784.47	23,676.09	*	*
TOTAL NUMBER OF CASES	16,840	45,580	59,291	61,318	200,702	86,682	514,440	154,173

Source: Analysis based on 5 percent IPUMS data sets.

Notes: Percent may not add up to 100 due to rounding.

* Income data to be added later from the 2010 American Community Survey.

Table 3. Odd Ratios of Logistic Regression of Labor Force Participation of Black and White African Immigrant Women

	1980		1990		2000		2010	
CHARACTERISTICS	Model I	Model II	Model I	Model II	Model I	Model II	Model I	Model II
RACE								
White	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Black	1.227***	1.179***	1.450***	1.212***	1.798***	1.048***	2.561***	2.160***
AGE GROUP								
16-24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25-34	1.271***	1.274***	1.981***	2.006***	1.647***	1.618***	2.055***	2.052***
35-44	1.585***	1.621***	2.264***	2.347***	2.089***	2.065***	2.389***	2.374***
45-64	1.137***	1.188***	1.297***	1.387***	1.293***	1.293***	1.409***	1.411***
EDUCATION								
0-8 years	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
9-12	1.608***	1.615***	1.813***	1.851***	1.593***	1.577***	1.899***	1.914***
13+	2.545***	2.571***	3.568***	3.684***	2.752***	2.728***	3.552***	3.611***
ENROLLMENT								
Not in school	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In school	0.525***	0.637***	0.553***	0.671***	0.682***	0.545***	0.494***	0.544***
MARITAL STATUS								
Not married	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Married	0.462***	0.423***	0.528***	0.413***	0.665***	0.391***	0.620***	0.496***
DURATION OF IMMIGRATION								
Less than 5 years	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5-9 years	2.214***	2.169***	1.903***	1.860***	1.503***	1.510***	1.553***	1.536***
10+ years	2.124**	2.098***	2.435***	2.379***	1.809***	1.803**	2.422***	2.390***
ENGLISH PROFICIENCY								
Speaks only English	1.600***	1.582***	2.094***	2.122***	2.382***	2.392***	1.970***	1.984***
Speaks very well	1.837***	1.830***	2.265***	2.284***	2.184***	2.192***	2.388***	2.407***
Speaks well	1.479***	1.485***	1.676***	1.715***	1.759***	1.783***	2.313***	2.336***
Not well	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 3. Continued.

	1980		1990		2000		2010	
CHARACTERISTICS	Model I	Model II	Model I	Model II	Model I	Model II	Model I	Model II
REGION								
Northeast	0.913***	0.909***	0.865***	0.875***	0.962***	0.961***	0.724***	0.733***
Midwest	0.972	0.973	0.652***	0.667***	1.070***	1.074***	1.082***	1.073***
South	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
West	1.134***	1.131***	0.844***	0.852***	0.975*	0.972*	0.815***	0.821***
INTERACTIONS								
Marriage by Race		1.339***		1.607***		2.084***		1.343***
School Enrollment by Race		0.655***		0.710***		1.321***		0.886***
-2 Log-Likelihood	71,367	71,198	139,693	139,135	340,741	339,396	559,595	559,145
TOTAL NUMBER OF CASES	2,787	2,787	5,256	5,256	12,200	12,200	4,303	4,303

***p ≤ 0.001 **p ≤ 0.01 * p ≤ 0.05

Source: Analysis based on 5 percent IPUMS data sets.

Table 4. OLS Regression of Average Daily Earnings for Black and White African Immigrant Women (Standardized Coefficients)

	1980		1990		2000		2010[a]	
CHARACTERISTICS	Model I	Model II	Model I	Model II	Model I	Model II	Model I	Model II
RACE								
(White)								
Black	-0.031***	-0.123***	-0.015***	-0.152***	0.001	-0.118***		
AGE GROUP								
(16-24)								
25-34	0.120***	0.115***	0.174***	0.171***	0.124***	0.120***		
35-44	0.166***	0.163***	0.221***	0.222***	0.177***	0.174***		
45+	0.209***	0.204***	0.193***	0.192***	0.152***	0.152***		
EDUCATION								
(0-8 years)								
9-12	0.066***	0.065***	0.088***	0.085***	0.044***	0.041***		
13+	0.244***	0.242***	0.273***	0.269***	0.225***	0.221***		
ENROLLMENT								
(Not in school)								
In school	-0.129***	-0.169***	-0.137***	-0.204**	-0.081***	-0.164***		
MARITAL STATUS								
(Not married)								
Married	-0.149**	-0.188***	-0.156***	-0.248***	-0.067***	-0.191***		
DURATION OF IMMIGRATION								
(Less than 5 years)								
5-9 years	-0.123***	-0.121***	-0.172***	-0.166**	-0.127**	-0.127***		
10+ years	0.007	0.012*	-0.084***	-0.079***	-0.065***	0.063***		
ENGLISH PROFICIENCY								
Speaks only English	0.080***	0.084***	0.082***	0.082***	0.114***	0.114***		
Speaks very well	0.125***	0.127***	0.116***	0.114***	0.109***	0.109***		
Speaks well	0.031***	0.034***	0.031***	0.032***	0.032***	0.034***		
(Not well)								

Table 4. Continued.

	1980		1990		2000		2010	
CHARACTERISTICS	Model I	Model II	Model I	Model II	Model I	Model II	Model I	Model II
REGION								
Northeast	0.001	0.001	0.033***	0.037***	0.024***	0.024***		
Midwest	0.006	0.004	-0.044***	-0.041***	0.005**	0.006**		
(South)								
West	-0.004	-0.004	0.003	0.005	0.035***	0.034***		
INTERACTIONS								
Marriage by Race		0.085***		0.150***		0.163***		
School Enrollment by Race		0.063***		0.092***		0.096***		
R Square	0.145	0.148	0.165	0.172	0.127	0.132		
Degree of Freedom	16	18	16	18	16	18		
TOTAL NUMBER OF CASES	55,739	55,739	120,608	120,608	287,383	287,383		

Omitted categories in parentheses.

***p ≤ 0.001 **p ≤ 0.01 * p ≤ 0.05

Source: Analysis based on 5 percent IPUMS data sets.
Note: [a]To be added later using the 2010 American Community Survey data.