Successful Black Immigrants Narrow Black-White Achievement Gaps*

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Abstract

The number of black immigrants in the US quadrupled from 1980 to 2010, increasing their share of the black population from 4% to 10%. During that time period the black-white wage and employment gap widened substantially. This paper explores the extent native blacks differ from immigrant blacks. Additionally it determines in how far increased selective immigration masks an even greater deterioration in the economic condition of native blacks. In 2011, excluding black immigrants increases the white-black wage gap by 4% for men and 9% for women. It increases the employment gap by 13% and 19% for men and women respectively.

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1 Introduction

During the 1960s and linked to the Civil Rights Act of 1964 many elite school started various affirmative action measures in order to increase the enrollment of African Americans. The emphasis on diversity not only increased the number of native blacks but also led to a sharp increase in the representation of blacks of immigrant origin. This spurred a controversial debate about the purpose and effect of affirmative action policies. At the 2004 reunion of Harvard's black alumni, Henry Louis Gates and Lani Guinier pointed out that while Harvard's undergraduates were 8% black, the majority of them were West Indian and African immigrants or their children (Rimer and Arenson 2004). They said that only about one third of African Americans at Harvard were descendants of slaves with all four grandparents born in the US.[1]

Figure 1 illustrates how black immigration from the West Indies and Africa exploded over the last few decades. The number of black immigrants living in the US has increased 13-fold from 1970 to 2010, increasing their share of the black population from 1% to 10%. Figure 1 suggests that this number continues to grow. Note that black immigrants also have a higher fertility rate than native blacks, which will naturally increase the share of second generation blacks. In 2011, a black immigrant female above the age of 16 had a 48% higher probability of having a child than a native black female. While black immigrant women have a larger total fertility rate compared to native black women, their teenage pregnancy rates are half as high.[2]

This paper explores the extent to which native blacks differ from immigrant blacks. Additionally it determines whether the relative success of the increasing subgroup of black immigrants masks even larger black-white earnings and education gaps. To do this, blacks are split into blacks born in the US and blacks born abroad. For convenience I refer to them as "native blacks" and "immigrant blacks", respectively.[3] This paper looks at gaps in education, earnings, employment and incarceration rates between whites and blacks in the US since 1980.

In 2011, black immigrant men earned close to $10,000 or 40% more than black native men. This premium shrinks to $3,000 or 7% once we condition on being employed. The analysis of employment, education, incarceration, and marriage outcomes, confirms that we are dealing with two completely different subsets of the population. Black immigrant men are much more likely than native black men to be employed, married, and not incarcerated. Schooling patterns point towards much higher college completion percentages and less high school dropouts for black immigrant men. Similar analysis applies to women though the variation in outcomes is generally compressed.

While immigrants of other races and ethnicities outperform natives as well, their premium is much smaller. White and asian immigrant men earn 24% and 10% more than their native counterparts, respectively.

[1] Vigorous debates about the purpose of affirmative action followed and some say black immigrants are not the appropriate beneficiaries of affirmative action policies that intended to help those disadvantaged by the legacy of Jim Crow laws. Massey et al. (2007) find that the representation of immigrant-origin blacks at selective institutions is roughly double their share in the population. For ivy league schools it is almost four-fold.

[2] In 2011, 4.2% of black native teenage girls had a child, while only 2.2% of black immigrant teenage girls did (based on author's calculations using ACS data).

[3] Ideally one would like to include the second generation but the census and ACS do not record parents' birthplace. In Section 4, CPS data with much smaller sample sizes is used to explore the importance of second generation blacks.

Hispanic immigrants, however, earn 13% less. Black immigrants, now 11% of the black population, have reached a large enough mass that any systematic difference in social and economic outcomes changes our estimates from purely native black-white inequality measures. Excluding first generation black immigrants from black-white wage, employment, college completion, and incarceration gap calculations substantially widens these inequality measures. For example, in 2011, the male log wage gap increases by 4%, the employment gap by 13%, the college completion gap by 13%, and the incarceration rate gap by 13%.

Analyzing the income distributions of all black and whites yields that the 1940-1980 convergence slowed down and almost halted completely in 1990 and beyond. Excluding immigrants, however, demonstrates that income distributions between whites and native blacks have diverged during the latter period. Schooling differences between black natives and black immigrants extend beyond college completion to major choices. Black immigrants, both men and women, are much more likely than native blacks to major in more technical fields such as engineering, natural sciences, economics, and health sciences compared to less technical fields such as social sciences, humanities, and education.

Thomas Sowell (1978) was one of the first authors to compare economic outcomes of immigrant and native blacks. He argued that black immigrants are a natural comparison group for black natives. Using the 1970 census, he finds a positive earnings gap between West Indian immigrants and native-born blacks and argues that "color alone, or racism alone, is clearly not a sufficient explanation of the disparities within the black population or between the black and white populations". He concludes that "cultural traditions" of native-born blacks stand in the way of economic achievement.[4]

The black-white wage gap has been studied extensively for the 1940-1980 period and economists have documented the large gains made by blacks.[5] Black-white wage convergence halted in 1980 but the evolution since has been studied relatively little.[6] A phenomenon that played no role for black white convergence before 1980 but does now is black immigration. In 1985, 816,00 foreign black men lived in the US. By 2005, this number had grown to 2,815,000 (Kent 2007). The beginning of sizable immigration flows from the West Indies was noticed and studied by multiple authors in the 1990s. After that, there was little additional work on this topic, which is ironic since black immigration as a true economic force had just begun.

In studies up until today blacks comprise both native blacks as well as the first and second generation. Being phenotypically similar does not translate into comparable labor market outcomes and the inclusion of immigrants clouds our understanding of native blacks' economic and social condition in the US. We must not confuse black economic progress driven by internal factors with population composition changes due

[4]Since Sowell (1978) a few studies used the 1980 and 1990 census to evaluate the relative success of black immigrants from the Caribbean (Butcher 1994, Kalmijn 1996) and from Africa (Kollehlon and Eule 2003). Butcher (1994) finds that while male annual earnings of black immigrants overall are slightly below those of native blacks, the subgroup of West indian men already display higher earnings. Kalmijn (1996) finds that success of black Caribbean immigrants is limited to British Caribbeans. Butler and Herring (1991) and Bogan and Darity (2008) evaluate entrepreneurship among black immigrants and find that self-employment rates are higher for immigrant blacks than native blacks. Hamilton (2012) is one of the only researchers to use post 2000 data to evaluate labor market differences of black immigrants and black natives. None of the above studies link their findings to black white inequality measures.

[5]A large literature provides a more complete analysis. See Smith and Welsh (1989), Card and Krueger (1992), Freeman (1973), Vroman (1974), and Donohue and Heckman (1991) for evidence.

[6]Some important work includes Wilson (1987), Bound and Holzer (1993), and Bound and Freeman (1992).

to selective immigration. This is especially true for questions that address long-term effects of slavery, Jim Crow laws, and segregation.

This paper is organized as follows. Section 2.1 compares native blacks to immigrant blacks. Section 3 analyzes the evolution of the black-white wage, employment, educational attainment, and incarceration rate gap over time and parses out the immigration effect. Section 4 provides upper bounds on the immigration effect by adjusting for the second generation. Section 5 extrapolates to the future. Section 6 summarizes my findings.

2 Data an Descriptive Statistics

Throughout this paper I use the current population survey data (CPS) from 1994 to 2011, and decennial census level data from 1940 through 2000 from the Integrated Public Use Series (IPUMS) and the IPUMS samples of the 2001 to 2011 American Community Survey (ACS). The post 1994 restriction for CPS data and the post 1940 restriction for census data are due to availability of questions and answers on own birthplace. In order to focus on the working age population I restrict the data to individuals between the ages of 21 and 65.[7]

2.1 Differences between Black Immigrants and Black Natives

Table 1 presents the descriptive statistics for males and females in 1980 and 2011. In each of the four columns under both 1980 and 2011, the first two compare all blacks and all whites and the following two split blacks into into black natives and black immigrants.

In 1980 average male unconditional annual earnings for whites are $16,400. Native blacks earn about 60% of that ($9,460). Immigrant blacks on average earn $9,370, which is less then native blacks, making the relative success of black immigrants a recent phenomenon. Breaking up unconditional earnings into employment probabilities and annual earnings and conditional earnings we see that both display significant black-white differences.[8]

In 1980 black immigrant males are more likely to be employed than native blacks (75% versus 71%) but they are still far away from the white male employment percentage of 84%. Note that as few as 57% of black African immigrants are employed in 1980. In 1980, black immigrants are more comparable to native blacks with respect to earnings, employment, and marriage rates than they are to whites. Lower incarceration rates (1.26% versus 3.38%) and much higher educational investments, however, separate black immigrants from native blacks. Relative high investments in human capital foreshadow a narrowing of the immigrant black-white earnings gap.

[7] Data limitations and procedures are discussed further in Section B of the Appendix.

[8] Further separating conditional annual earnings out into wages, weeks and hours worked yields that all three are driving forces behind the black-white gap. While West Indian and South American black immigrants are earning as much or more than native blacks, black immigrants from Africa and other countries are earning about 90% of native blacks, thereby pulling the black immigrant average down.

For women the relative success of black immigrant women in the labor market is already apparent in 1980. In 1980 black immigrant females have the highest probability of being employed (67%) compared to native black women (58%) and white women (56%). Average female earnings conditional on working for black immigrants are above those of native blacks and right behind those of whites.

In 2011 average male unconditional annual earnings conditional on working for whites are $48,500. Native black workers earn about half of that equaling $23,500. Black immigrant workers average unconditional annual earnings equal $32,900 and therefore now earn about $10,000 or 40% more per year than native black workers. [9]

While the gaps in conditional earnings between black immigrants and natives are rather small, they are immense in employment, incarceration, marriage, and schooling outcomes. 76% of both white males and black immigrant males aged 21-65 were employed in 2011. Only 59% of black males aged 21-65 were employed, a number that drops to 57% when black immigrants are excluded. 59% of native blacks' education is a high school degree or less, while only 43% of both whites and immigrant blacks fall into this category. 14% of native blacks obtain a college degree while 32% of whites and 30% of immigrant blacks obtain a college degree or more.[10] Incarceration probabilities of males display the greatest differences. Incarceration probabilities for white males and black immigrant males lie in between 1% and 2% while native black males have an over 8% chance of being imprisoned in 2011. A much higher fraction of black immigrant males and white males than native black males is married (53% and 57% versus 34%).

The African subgroup of black immigrant males display very interesting characteristics (see Table A.1 for break-down by country of origin). From 1980 to 2011 Africans went from being the least likely black immigrant group to be employed to being the most likely black immigrant group to be employed. Except for conditional earnings, which are close to the black immigrant average, black African immigrants outperform not only black natives but also whites in most outcomes. Black African males have a much higher chance of employment (80% versus 57%), lower chance of incarceration (1.05% versus 8.35%), and more college graduates (43% versus 14%) than black native males. Starting with Sowell in 1978 and followed by numerous studies in the 1990s, authors examined whether West Indian immigrants are more successful than native blacks and Model's 2008 book title asked the pertinent question "West Indian Immigrants: A black success story?" (Model 1991, 1995, 2008, Butcher 1994, Kalmijn 1997, Waters 1999). These results raise the possibility of a new question: "African Immigrants: The black success story?" [11]

[9] Analyzing conditional annual earnings and employment we see that the difference between native and immigrant blacks is mostly driven by employment probabilities. Separating annual earnings as before, we see that the black-white gaps in weeks and hours worked have narrowed. Hence it is primarily wages and to a lesser degree hours and weeks worked that are driving the black-white conditional earnings gap. The same is true for the native black-immigrant black conditional earnings gap.

[10] While the high school and college degree categories include individuals with the relevant degree, the graduate school category simply implies that individuals continued school after college (whether they graduated form their program or not.)

[11] There are several reasons to be cautious about these results and they certainly require further investigation. First, many African immigrants come to the US to attend college or graduate school so they are a very select group. This is not a problem with my results per se since self-selectivity of immigrants is part of the reason black-white gaps are underestimated. Second, immigrants that do not become naturalized are likely to be deported for severe crimes. Hence we would expect immigrants' incarceration probabilities to be lower even if their probability of being convicted of a crime that would lead to incarceration were identical. This bias should be negligible.

Panel B of Table 1 displays the same mean outcomes for women in 2011. At first glance, we can already see that the variation in outcomes across groups is much less than that of men. Conditional and unconditional annual earnings of native black women are at 91% and 78% of those of white women, which points to a much more equal distribution than that of men (64% and 48%). The gap in the fraction employed between whites and native blacks falls from 20 percentage points to 5 points. Incarceration probabilities for females are below 1% for all subgroups but native black women are still two and a half times more likely to be imprisoned than white women. Educational patterns display the same relations as those for men but the variability is compressed. Differences in marriage probabilities are an exception. White women aged 21-65 are more than twice as likely to be married as native black women (59% and 28%), while the black immigrant female marriage probability lies in between these two rates (45%).[12]

3 Adjusting Black-White Inequality Measures

3.1 Labor Market Gaps

Figure 2 displays yearly white-black and white-native black log wage gaps for men controlling for age.[13] From 1940 to 1980 black men made significant gains compared to white men. Log wage gaps decreased from 0.80 to 0.27. In other words whites went from earning 2.2 times as much as blacks to earning 1.3 times as much. For the 1940-1980 time period the black-white log wage differences look almost identical to native black-white since black immigration was very limited. The convergence of the wages between blacks and white halted in 1980. The right plot in figure 2 demonstrates that wage gaps have mostly remained constant or grown since 1980. Excluding black immigrants and focusing on black natives alone exacerbates this phenomenon and increases the 2011 white-black log wage gap by as much as 4% (from 27.2 to 28.3 log points).

Figure 3 shows that black women took even greater steps than men towards wage parity between 1940 and 1980. Female black-white log wage differences of women decreased from 95.7 to 3.6 log points points. Having almost reached complete wage convergence in 1980, the next three decades have been characterized by an increase in female wage inequality. Log wage differences increased to 14.2 log points in 2011, and this gap increases an additional 9% to 13.0 log points if black immigrant females are excluded.

Figure 4 displays differences in the fraction employed between white and blacks. There is a striking difference between the evolution of wage gaps and the evolution of employment differences. While the development of wage gaps can be split into a decreasing and an increasing portion (pre and post 1980),

[12] See Charles and Luoh (2011) for a link between increased male incarceration rates and decreased female marriage rates.

[13] Wages are defined as follows: Wage=Annual Earnings/(Weeks worked*Hours worked per week). For the 1990-2000 censuses and the ACS annual earnings is available. For the 1950-1980 censuses comparable measures are derived by adding business and farm income. In 1940, individuals were only asked about their wage and salary income and hence my annual earnings measure of 1940 is restricted to wage and salary income. Weeks worked are provided in intervals and I take the midpoint of each interval. Hours worked (during the previous week) are provided as a continuous measure from 1980 onwards. For the 1940-1990 censuses interval measures of hours worked during the previous week are available and I again use the midpoint. Using income from wages in the nominator instead does not change the analysis.

employment differences have mostly increased from 1940 until 2000 despite a stark downtick in 2000.[14] The right plot of figure 4 illustrates that the fraction of white and black males employed have not only been significantly different over time but have also been drifting further apart. Some of the widening of the gap can be linked to the explosion of incarceration rates that has disproportionately affected young black men as addressed later on. The exclusion of immigrants has an even greater effect on the male employment gap than it does on male wage gaps post 1980. By 2011, the exclusion of immigrants raises the male white-black employment gap by 13% from 18.3 to 20.6 percentage points.

While the trend of the female white-black employment gap is very similar to that of men, the levels are very different (Figure 5). In 1940, black women actually had a 13 percentage point higher employment rate than white women. This gap started narrowing and by 1990 white women were more likely to be employed than black women. Excluding black immigrant females increases this gap by as much as 32% in 2008. Note that while this is a large percentage change, it is a very small level change from 2.5 to 3.3 percentage points. This suggests that employment inequality between black and whites is more severe for men than for women.

Up until now I have looked at the average black, native black, and white worker. Such comparisons cannot capture whether differences are driven by few very poor or rich subgroups or whether the entire economic spectrum of the relevant subpopulations is affected by economic changes. Following Smith and Welsh (1989), Table 2 measures the percent of native and immigrant black men and with annual earnings above the three white critical values (bottom quarter, median, top quarter).

The earnings distributions were very unequal in 1950. Only 12 in 100 native black men earned more than the median white male and as few as 3 in 100 blacks entered the exclusive white top quartile club. The earnings distributions converged from 1950 to 1990. By 1990, 26 percent of black men earned more than the median white and close to 10 percent of blacks would have fallen into the top quartile of the white income distribution. In 1990 this convergence halted. The gains from black economic progress in the 1940-1980 period have not been erased, but the percentage of blacks above the bottom quartile, median, and top quartile of the white earnings distribution have remained stagnant, and if black immigrants are excluded slightly decreased, from 1990 and 2010.

Black immigrants were very rare up until 1970. By 1980, many more and probably slightly less positively selected black immigrants have arrived in the US. The percentage of black immigrant men above the median and top quarter of the with earnings distribution is just below that of black natives. From 1980 to 2010 black immigrants experience large gains in terms of their position in the relative earnings distribution. 70% of black immigrants, versus 53% of natives find themselves above the 25th percentile of the white earnings distribution. 35% of black immigrants, versus 25% of black natives, earn more than the media white male.[15] An analysis of assimilation patterns yields that this increase in earnings is driven by the positive correlation

[14] For expositional clarity years 2001-2010 will be excluded. Severe data anomalies when switching from the census to ACS from 2000 to 2001 are well established in the literature. The driving differences seem to come from the unemployed.

[15] The relative increase in earnings of black immigrants can at least partly be explained by the shift in the US immigration policy. The Immigration and Nationality Act of 1965 abolished the national origins quota system and introduced a system that focused on immigrant's skills and family relationships with citizens or U.S. residents.

between time spent in the US and earnings, and not by an increase in cohort quality.

3.2 College Attainment Gap

From Table 1 we already know that black immigrants, especially male black immigrants on average have significantly higher schooling levels than black natives. Figure 6 shows in how far relatively high human capital investments of black immigrants mask a widening white-black college completion gap. The white-black college completion gap for males has grown substantially since 1940 but seems to have plateaued since 1980. This stagnation is just a symptom of the relatively high black immigrant to black college completion ratio. To be precise, excluding immigrants increases the male black-white college completion gap by 13% from 15.6 to 17.6 percentage points in 2011. For females there has been no plateauing, neither in the white-black nor in the white-native-black college completion gap. The inclusion of immigrants, however, does mask a greater widening of the white-black college completion black. In 2011, excluding immigrants raises the gap by 6% from 13.8 to 14.6 percentage points.

College is linked to more than just a binary variable capturing completion. Major choice and success in college influence labor market outcomes. In 2009 the ACS introduced a question about the degree field of college graduates. Analyzing degree fields helps determine whether black immigrants' major choices are significantly different from those of native blacks and whites, possibly foreshadowing differences in common career paths by background. Let us separate majors into more technical and less technical fields. The technical field group is comprised of the natural sciences, engineering, economics, and computer science and the rest falls into the less technical field group.[16] On a national level, a much higher percentage of white than black male students major in these fields (31% versus 23%) and as many as 38% of black immigrant males major in this category.[17][18]

3.3 Incarceration Gap

According to the Bureau of Justice statistics, 2.3 million adults were incarcerated in 2010. In addition, 5 million were on probation and parole. It has long been clear that minorities and especially blacks have ben disproportionately affected by this mass incarceration. Pettit (2005) finds that the cumulative risk of being imprisoned by ages 30-34 is 5% for white men and 28% for black men. These probabilities reach 28% and 68% if we focus on high school dropouts alone.

In 2011, 7.56% of black males aged 21-65 were incarcerated in the US while 1.30% of working-age white males were incarcerated. Black immigrants have a similarly low probability of being incarcerated

[16] Arcidiacono et al. (2012) find that at Duke this category (except for computer science) is associated with higher study times and harsher grading standards. Analyzing time paths of major choices, they find that black students shift disproportionately from their initial interest in natural sciences, engineering, and economics to majors in the humanities, and social sciences.

[17] Similarly, 18% of black immigrant females versus only 11% of both white and black native females major in natural sciences, engineering and economics.

[18] Breaking up major decisions by age group did not reveal any striking cohort differences.

*(*1.74%*)*. Excluding immigrants increases the percentage of blacks incarcerated to 8.35%. These changes are analyzed in a black-white gap framework in Figure 7. The black-white gap in the fraction of males incarcerated has been rising sharply since 1980. The exclusion of black immigrants further widens the male gap by 13% from 6.1 to 6.9 percentage points in 2011. The female gap increases by as much as 18% when black immigrants are excluded but the level changes are small from .36 to .42 percentage points.

Mass incarceration started around 1980 and has affected young men with little schooling the most. Table 3 focuses on 21-35 year old men and breaks the percentage incarcerated down by schooling level and race/ background to illustrate the disproportionalities.[19] Among young black native men between the age of 21 and 35, the percentage incarcerated reached 11.2% in 2011 compared to 1.8% for whites and 2.3% for black immigrants. Among high school dropouts, 32.4% of native black men were incarcerated compared to 8.8% of white men and 9.5% of black immigrant men. The trend in incarceration probabilities of black immigrants closely follows the trend of white men, not that of black men.

4 Adjustment for the Second Generation

As previously mentioned, the ACS and the censuses (post 1970) unfortunately do not record parents' birthplace and therefore do not allow me to identify the second generation. If black second generation blacks have outcomes comparable to black first generation immigrants, the above adjustments are a lower bound for the immigrant effect. In 2012, 11.6% of blacks between the ages of 21 and 65 were first generation immigratns. The second generation is still young; in 2012 only 2.8% of blacks belonged to the second generation. If the second generation were to have outcomes identical to the first generation, linear interpolation increases the immigrant effect by about 25%.[20]

To test this assumption Table 4 compares education and earnings outcomes for working age men. Due to small sample sizes, observations are pooled over the 5-year period from 2008-2012. At first glance, it seems that earnings and employment outcomes of second generation black men are low and comparable to those of native blacks (Panel A). Note, however, that the average second generation black is more than 8 years younger than the first generation immigrant. Since earnings increase steeply until the mid forties, column 5 uses inverse probability weighting to equalize the age distribution of the first and second generation. Now sons of black immigrants earn $3000 or 8% more than the average first generation black immigrant.[21] The fraction of second generation blacks with a college degree is 35% and therefore 4 percentage point higher than those of the first generation. In terms of marriage patterns, however, the second generation displays patterns comparable to native blacks, rather than the first generation. While 60% of the black men in the first generation are married, only about 43% of both natives and sons of immigrants are are married. This points to different assimilation patterns between labor market and marriage market outcomes.

[19] This analysis follows Pettit (2005).

[20] To be precise, the immigrant effect on wages rises to 5% on wages, and 16% on employment, college completion, and incarceration percentages.

[21] The second generation premium equals 5% for white and asian men and a striking 35% for hispanic men.

For women both of these trends seem to be even more pronounced (Panel B). The second generation, once adjusted to have the same age distribution as the first generation, has an earnings premium of $8,600 over native blacks, $6,700 over first generation, and $3,600 over whites. Only 38% of women in the second generation are married, which is close to the average of native blacks (39%) and much lower than marriage probabilities of the women of the first generation (57%) and white women (65%).

5 Extrapolation to the Future

There are three reasons that suggest that black first and second generation will make up a greater share of the black population in the future than they do today. First, as mentioned above, the share of second generation blacks of working age is still low compared to first generation immigrants. Since black immigration of notable size did not start until 1980 most immigrants are not old enough to have had working age children today. Second, black immigration has been steadily increasing since 1980 and it is reasonable to assume that it will either continue to increase or remain constant but probably not decrease sharply. Third, black first generation immigrants have a higher fertility rate than native blacks, which naturally increases the share of second generation blacks.

In addition to an increase in black immigrants, I expect annual earnings of black immigrants to increase significantly over the next decades. The education attainment gaps between native and immigrant blacks are currently larger than the earnings gaps. The second generation black population is currently very young when compared to the native population (18 versus 34 years) and they have not reaped the returns of increased human capital investments yet.[22]

If these two developments progress as laid out above, and the average outcomes of whites do not change dramatically, extrapolation suggests that black immigration will have a strong positive effect on black white wage ratios. This could manifest itself in two ways: Either black white wage ratios increase, which could be misinterpreted as an decrease in native black-white inequality if the immigration channel is ignored or black white wage ratios fall or remain constant and the immigration channel is masking an even greater increase in inequality.

6 Conclusion

This paper adds to the existing literature on three dimensions. First, it lays out the fact that black immigrants have become a large part of the black population in the last decades. Second, it demonstrates that the characteristics of immigrant blacks are very different from those of native blacks. Third, it adjusts inequality gaps to stress how the inclusion of immigrants has painted a false picture of native black progress.

The share of the black immigrants among the black population in the US has increased from 1% in the

[22]The source is the Public Use Sample of the Current Population Survey from 2012. Weights are used to reflect sampling.

1970s to 11% in 2011. Black immigrant males' earnings and wages are higher than those of native blacks but the premium is small once we condition on being employed. Employment, education, incarceration, and marriage outcomes confirm that we are dealing with two completely different subsets of the population. Black immigrants are much more likely then native blacks to be employed, married, highly educated and not incarcerated. The 1980 to 2010 period represents a widening of the black-white wage, employment, college completion, and incarceration gap. This deterioration of blacks' relative economic position is further exacerbated when black immigrants are excluded and native blacks are compared to whites.

In summary, the inclusion of black immigrants when analyzing black-white achievement gaps clouds our understanding of the economic and social condition of native blacks. This channel is likely to gain in importance as black immigration continues to increase and second generation blacks grow old enough to reap the rewards of their relatively high human capital investments. Hence, future research on black-white inequality should be aware of this effect in order to not overestimate native black economic progress. My intention is not to dismiss black immigration as a purely confounding factor. On the contrary, selective black migration has the potential to spur upward mobility for all blacks in the US. Nevertheless, confusing black economic progress driven by internal factors with population composition changes due to immigration flows is a pitfall that future research needs to avoid. This is especially true for questions that address long-term effects of slavery, Jim Crow laws, and segregation.

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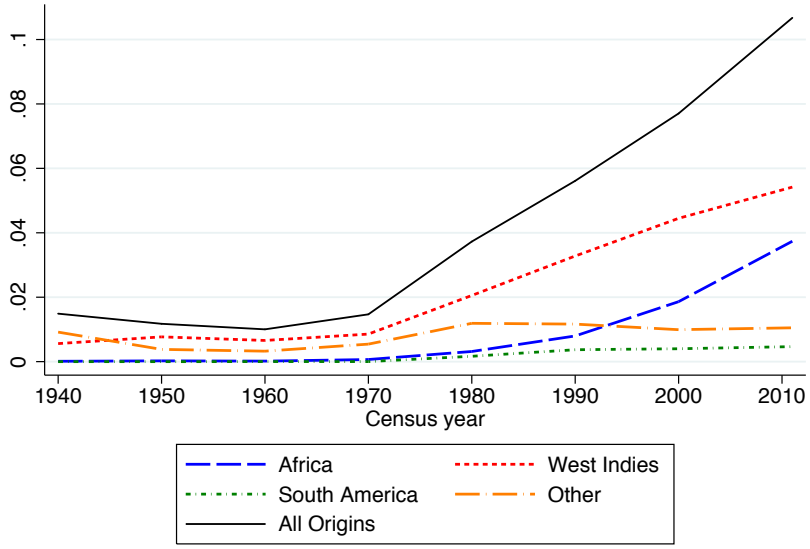
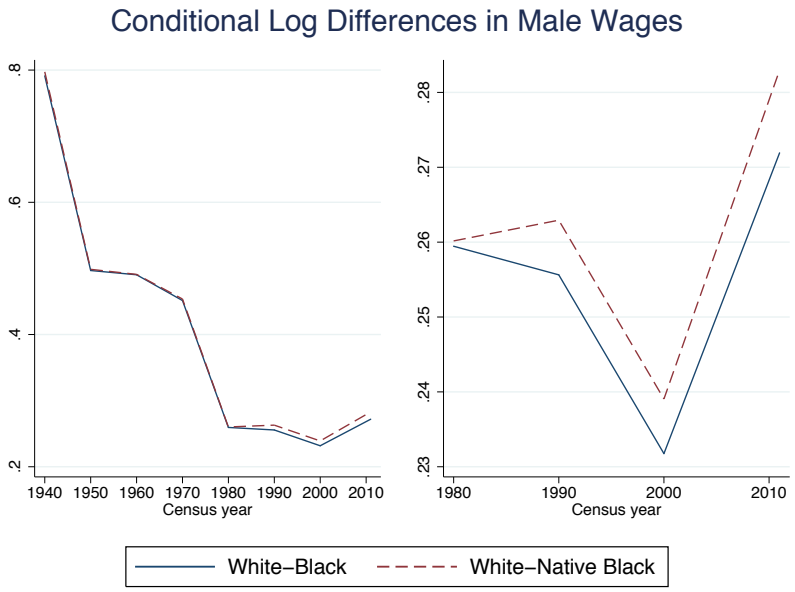
Figures and Tables

Figure 1: Black Immigrants as Share of Black US Population (by Origin)



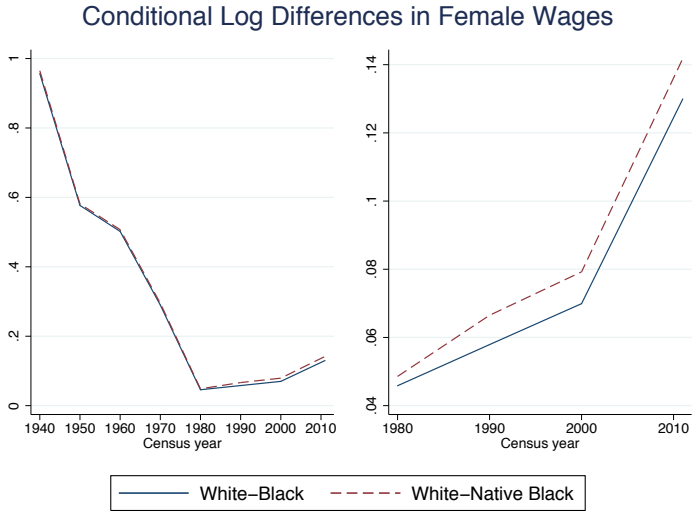
Source: IPUMS– Census and ACS with probability weights

Figure 2: The Evolution of Male White-Black Wage Gaps



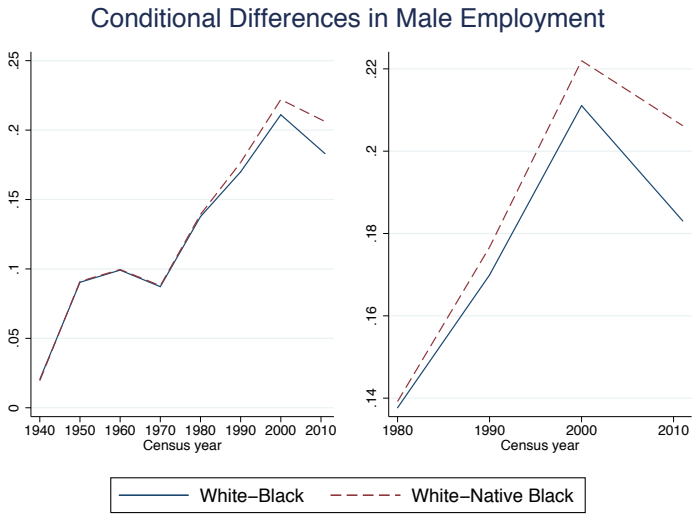
Note: The entries for Figures 2 and 3 come from a regression of log wages on group dummies and an age control. The regression includes a sample of of 21-65 year old workers in the Public Use Sample of the American Community Survey from 2001 to 2011 and the Decennial Censuses from 1940-2000. Weights are used to reflect sampling.

Figure 3: The Evolution of Female White-Black Wage Gaps



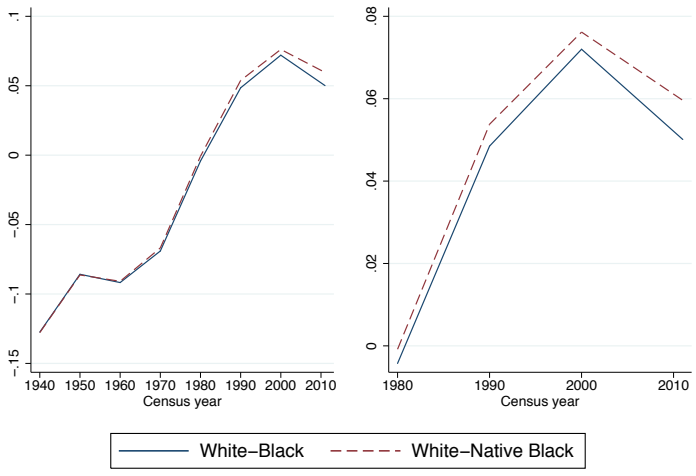
Note: See Figure 2.

Figure 4: The Evolution of the Male White-Black Employment Gaps



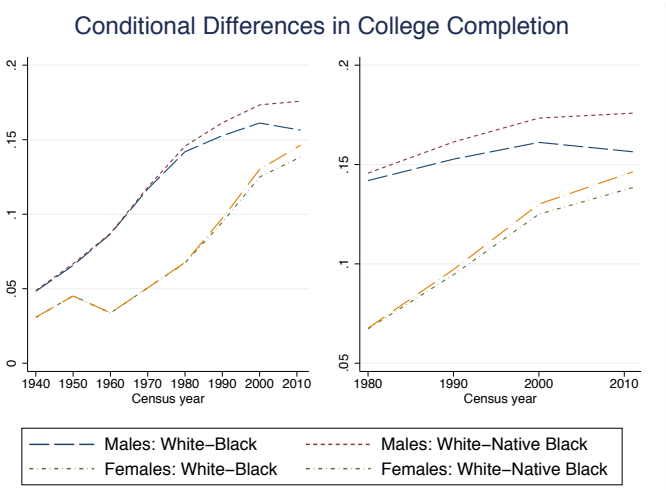
Note: The entries for Figures 4, 5, 6 and 7 come from regressions of the relevant outcome variable (i.e. employment, college completion, incarceration) on group dummies and an age control. The regressions include a sample of of 21-65 year olds in the Public Use Sample of the American Community Survey from 2001 to 2011 and the Decennial Censuses from 1940-2000. Weights are used to reflect sampling.

Figure 5: The Evolution of the Female White-Black Employment Gaps



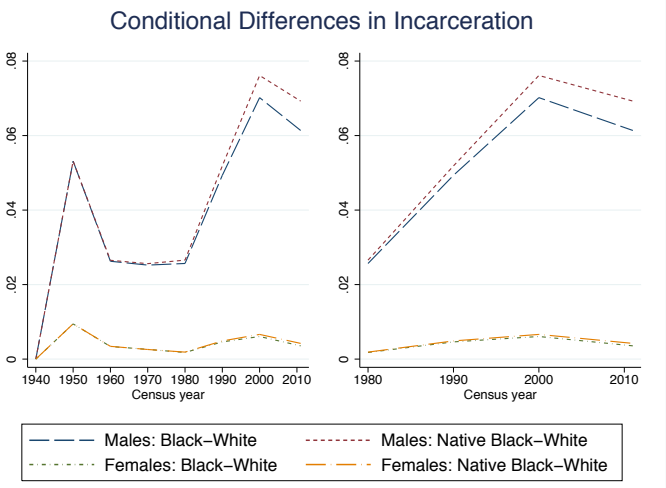
Note: See Figure 4.

Figure 6: College Completion Gaps



Note: The entries from figure 6 come from a regression of college completion on group dummies and an age control. The regression includes a sample of of 21-65 year olds in the Public Use Sample of the American Community Survey from 2001 to 2011 and the Decennial Censuses from 1940-2000. College graduates are those with 16 or more completed years of schooling for the 1940 to 1980 samples and those with a bachelors degree or higher in the 1990 to 2011 samples. Weights are used to reflect sampling.

Figure 7: Incarceration Gap



Note: The entries from figure 7 come from a regression of incarceration on group dummies and an age control. The regression includes a sample of of 21-65 year olds in the Public Use Sample of the American Community Survey from 2006-2011 and the Decennial Censuses from 1940-2000. To estimate the proportion incarcerated I use the group-quarters identifier included in the PUMS data. The decennial Census enumerates both the institutionalized as well as the non-institutionalized population. See [**?**] and [**?**] for studies that also use the group quarter variable to identify the incarcerated. Weights are used to reflect sampling.

Table 1: Summary Statistics

	1980				2011			
	All		Blacks		All		Blacks	
	Whites	Blacks	Native Blacks	Immigrant Blacks	Whites	Blacks	Native Blacks	Immigrant Blacks
Panel A: *Men*								
Annual Earnings	16,400	9,460	9,460	9,370	48,500	24,060	23,500	32,900
Employed	0.84	0.71	0.71	0.75	0.76	0.59	0.57	0.76
Cond. Annual Earnings*	18,500	12,100	12,170	11,600	61,700	39,700	39,300	42,100
Age	39.95	37.98	38.05	36.49	43.63	41.13	41.07	41.52
Married (percent)	73.06	54.20	54.01	58.60	57.32	36.27	33.95	53.36
Incarcerated (percent)	0.69	3.29	3.38	1.26	1.30	7.56	8.35	1.74
HS (percent)	35.72	33.46	33.55	31.52	36.59	44.64	46.00	36.64
Some College (percent)	19.54	17.15	16.88	23.19	25.46	26.88	26.82	27.34
College (percent)	11.47	4.60	4.47	7.42	20.96	11.00	9.97	18.63
Grad School (percent)	10.96	3.93	3.67	9.81	11.05	4.87	3.95	11.63
Sample Size	2,490,000	296,000	283,500	12,500	605,300	93,500	83,900	9,570
Panel B: *Women*								
Annual Earnings	5,250	5,230	5,2003	6,160	27,600	22,100	21,500	26,500
Employed	0.56	0.58	0.58	0.67	0.68	0.64	0.63	0.71
Cond. Annual Earnings*	8,580	8,260	8,250	8,480	39,500	33,300	32,900	36,000
Age	40.56	38.49	38.52	37.71	43.99	41.70	41.70	41.69
Married (percent)	71.86	44.87	44.66	50.34	58.99	30.03	28.08	45.15
Incarcerated (percent)	0.29	0.44	0.45	0.18	0.30	0.65	0.72	0.14
HS (percent)	43.96	35.26	35.20	36.83	33.31	37.45	37.89	34.02
Some College (percent)	18.98	17.16	17.00	21.26	27.72	32.22	32.59	29.32
College (percent)	9.19	5.08	5.07	5.43	22.42	13.82	13.32	17.67
Grad School (percent)	5.76	3.71	3.68	4.56	12.06	7.16	6.86	9.44
Sample Size	2,600,000	357,000	346,000	13,400	621,000	102,000	91,500	10,600

The sample consists of 21-65 year olds in the 1980 census and the 1-in-100 Public Use Sample of the American Community Survey for 2011.
*Conditional outcomes only refer to employed individuals. High school dropouts are the omitted group in the schooling categories.

Table 2: Overlap Between Black and White Male Income Distributions

	1950	1960	1970	1980	1990	2000	2010
Black Natives							
> 25th Percentile White	45.12	40.96	48.30	53.00	52.83	53.50	52.56
> 50th Percentile White	12.31	12.57	18.35	22.86	25.64	26.29	25.34
> 75th Percentile White	2.68	2.32	4.73	7.37	8.61	9.28	8.57
Black Immigrants							
> 25th Percentile White	61.37	50.10	54.54	53.20	62.28	64.19	70.46
> 50th Percentile White	18.96	14.31	21.61	20.27	30.71	32.97	34.54
> 75th Percentile White	4.37	3.38	6.77	6.63	10.33	12.55	13.20

The sample consists of 21-65 year olds in the Public Use Sample of the Decennial Censuses from 1950-2000 and the American Community Survey from 2010. Weights are used to reflect sampling.

Table 3: Incarceration Probabilities, Ages 21-35

	1970	1980	1990	2000	2010
White men					
High School Dropouts	2.30	2.49	3.95	7.12	8.79
High School	0.68	0.79	1.43	2.35	2.75
Some College	0.28	0.34	0.58	0.51	0.53
All	0.89	0.78	1.18	1.72	1.83
Black immigrant men					
High School Dropouts	2.86	3.80	9.70	16.13	9.51
High School	0.99	1.61	3.73	3.75	2.82
Some College	0.00	0.83	1.95	0.65	1.05
All	1.14	1.66	3.38	3.31	2.29
Black native men					
High School Dropouts	7.59	9.46	19.99	34.35	32.39
High School	2.79	3.64	7.76	11.86	11.41
Some College	1.63	2.49	5.05	3.53	3.26
All	4.83	4.88	8.86	12.60	11.23

The sample consists of 21-65 year olds in the Public Use Sample of the American Community Survey from 2010 and the Decennial Censuses from 1940-2000. Weights are used to reflect sampling.

Table 4: 2008-2012 Summary Statistics

	Whites	Native Blacks	Imm. Blacks 1st	Imm. Blacks 2nd	Weighted Imm. Blacks 2nd
Panel A: *Men*					
Annual Earnings	50,700	28,100	34,100	28,400	36,700
Labo Force	0.84	0.75	0.86	0.79	0.81
Employed	0.78	0.63	0.76	0.66	0.70
Cond. Annual Earnings*	62,000	40,900	42,200	39,700	49,300
Age	43.35	41.14	40.78	32.44	40.78
Married (percent)	62.17	44.72	59.93	25.65	43.23
HS (percent)	30.80	38.35	29.07	22.28	22.36
Some College (percent)	28.75	30.22	29.23	41.32	36.96
College (percent)	22.53	12.90	19.85	22.13	23.48
Grad School (percent)	11.37	5.60	11.11	7.72	11.83
Sample Size	182,300	28,900	3616	797	797
Panel B: *Women*					
Annual Earnings	27,900	22,900	24,800	25,500	31,500
Labor Force	0.73	0.72	0.76	0.76	0.77
Employed	0.69	0.64	0.68	0.65	0.68
Cond. Annual Earnings*	38,700	33,500	34,400	36,000	43,600
Age	43.64	41.52	41.36	33.48	41.36
Married (percent)	64.57	39.28	56.96	28.99	37.90
HS (percent)	27.47	31.76	28.10	16.70	17.49
Some College (percent)	31.84	34.57	30.90	40.07	36.82
College (percent)	23.65	15.14	19.74	25.46	24.29
Grad School (percent)	11.85	7.15	8.19	11.15	14.25
Sample Size	191,500	37,200	4102	837	837

The sample consists of 21-65 years olds in the March CPS samples from 2008-2012. Second generation black immigrants in column (5) are reweighted to have the same age distribution as the first generation in column (3). High School dropouts are the omitted group in the schooling categories. *Conditional outcomes only refer to employed individuals.

A Supplemental Tables

Table A.1: Summary Statistics by Origin

	1980				2011			
	West Indians	Africans	South Americans	Other Origin	West Indians	Africans	South Americans	Other Origin
Panel A: *Men*								
Annual Earnings	10,400	7,010	10,700	8,470	31,300	33,800	38,500	34,000
Employed	0.81	0.57	0.82	0.72	0.74	0.80	0.78	0.68
Cond. Annual Earnings*	11,900	10,900	12,400	10,900	41,100	41,280	48,400	48,800
Age	38.02	30.53	36.52	36.71	43.47	39.90	43.44	38.38
Married (percent)	65.75	50.73	67.93	47.61	54.52	54.89	58.01	39.20
Jail (percent)	0.40	0.27	0.57	3.54	1.79	1.05	0.96	4.80
HS (percent)	35.52	11.14	33.40	34.38	42.92	24.40	45.58	34.65
Some College (percent)	19.66	43.10	26.19	18.90	25.86	28.61	21.00	31.72
College (percent)	6.41	15.47	7.97	4.99	14.33	23.84	17.83	17.02
Grad School (percent)	7.02	26.93	13.09	5.56	6.52	18.68	5.83	8.06
Sample Size	6,700	1,850	530	350	4,580	3,630	410	950
Panel B: *Women*								
Annual Earnings	6,720	3,970	7,180	5,230	27,400	24,300	27,900	28,000
Employed	0.72	0.47	0.72	0.61	0.72	0.69	0.70	0.72
Cond. Annual Earnings*	8,750	7,170	9,280	7,890	36,500	34,000	39,300	37,700
Age	38.41	29.87	38.31	37.62	44.03	38.48	44.11	38.59
Married (percent)	51.78	63.81	51.67	44.92	42.29	52.70	47.18	34.53
Jail (percent)	0.06	0.00	0.00	0.47	0.18	0.11	0.00	0.11
HS (percent)	38.14	22.93	40.91	36.08	37.20	30.77	38.68	25.37
Some College (percent)	20.94	35.36	20.00	19.59	29.03	29.10	26.79	32.79
College (percent)	5.12	15.06	5.61	4.31	14.35	21.47	18.52	22.64
Grad School (percent)	4.37	13.26	6.52	3.06	8.65	9.84	6.77	13.70
Sample Size	7,930	720	660	48,000	5,900	3,200	528	1,030

The sample consists of 21-65 year olds in the 1980 census and the 1-in-100 Public Use Sample of the American Community Survey for 2011.
Weights are used to reflect sampling. *Conditional outcomes only refer to employed individuals.

Table A.2: Overlap Between Black and White Female Income Distributions

	1950	1960	1970	1980	1990	2000	2010
Black Natives							
> 25th Percentile White	54.23	56.78	62.56	64.87	71.18	73.35	71.22
> 50th Percentile White	54.23	56.78	54.92	50.17	48.44	47.24	43.83
> 75th Percentile White	21.12	15.70	20.99	22.84	22.88	19.26	17.33
Black Immigrants							
> 25th Percentile White	36.52	61.05	73.90	72.15	79.76	76.92	78.34
> 50th Percentile White	36.52	61.05	70.22	58.63	60.66	53.77	51.13
> 75th Percentile White	26.50	33.80	35.58	29.03	31.38	24.13	20.57

The sample consists of 21-65 year olds in the Public Use Sample of the Decennial Censuses from 1950-2000 and the American Community Survey from 2010. Weights are used to reflect sampling.

Table A.3: Incarceration Probabilities, Ages 21-35

	1970	1980	1990	2000	2010
White women					
High School Dropouts	0.44	0.38	0.73	1.19	2.29
High School	0.16	0.13	0.22	0.33	0.54
Some College	0.18	0.10	0.11	0.08	0.13
All	0.23	0.15	0.19	0.23	0.33
Black immigrant women					
High School Dropouts	0.71	0.41	2.27	1.38	0.44
High School	0.00	0.12	0.21	0.30	0.10
Some College	1.25	0.07	0.15	0.08	0.10
All	0.53	0.16	0.38	0.27	0.13
Black native women					
High School Dropouts	0.79	0.89	2.51	4.13	3.40
High School	0.29	0.26	0.83	0.94	0.86
Some College	0.39	0.26	0.46	0.33	0.24
All	0.52	0.41	0.89	1.03	0.75

The sample consists of 21-65 year olds in the Public Use Sample of the American Community Survey from 2000 and the Decennial Censuses from 1940-2000. Weights are used to reflect sampling.

B Data Description

Data Limitations

There are some very unfortunate data limitations with the CPS, ACS, and census data. The CPS asks respondents about the birthplace of their parents starting in 1994. In 2012 the sample includes over 200,000 individuals. Roughly 22,700 of the sample identified themselves as non-Hispanic black, 2100 as first generation immigrant non-Hispanic black, and only 1200 as second generation non-Hispanic black. If we restrict our sample to the working age population the number of first and second generation members in the sample drop to 1600 and 340 respectively. Substantial black immigration is a very recent phenomenon and it accelerated massively over the past 30 years. Hence many immigrants have not had children that are old enough to be in the sample. Consequently the sample size is very small for calculating average annual wage, employment status, and educational attainment rates. Furthermore, the CPS coverage does not include military and institutional populations and is therefore not helpful in providing insights about the black-white differences in incarceration rates.

The sample size for the ACS is much larger averaging about 3 million addresses per year. It includes both military and institutional populations. Neither the census not the ACS, however, ask respondents about their parents' place of birth after 1970 so I can infer very little about second- or later generations from the ACS and census and am limited to first generation immigrants. My method is to mostly use the ACS and census due to its sample size and more inclusive coverage, but infer second generation characteristics from the CPS and subsequently adjust my ACS/ census estimates.

Besides data limitations there are technical problems with both the CPS and the ACS/census. First, earnings are capped at different values in different years. This biases wage gaps since disproportionately many whites are high earners. Second, both the CPS and ACS oversample certain populations and sample weights are necessary. Third, both the CPS and ACS/census have started a hot-decking procedure that imputes earnings and other characteristics for individuals who do not report the relevant statistics. Dropping these observations would delete a disproportionate number of young low-skill blacks and cause illusory convergence (Chandra 2003), leading to the inclusion of imputed data by most researchers. Bollinger and Hirsch (2006) show that this introduces substantial bias due to mismatch in the imputation process.

In this paper, I estimated my results including imputed data. The ACS/census is a much larger data set than the CPS and the bias is smaller. Dropping individuals with imputed information on age, race, sex, education, weeks worked or income does not change the results. One exception is that the hump in black incarcerated men in 1950 in Figure 7 disappears.

Census and ACS Data

This paper uses data from the decennial censuses from 1940 to 2000. The 1940 sample is a subsample representing 1% of the population. The 1950 sample is a 1% sample of the population and includes sample-

line persons (who answered additional census questions for the entire household). The 1960 sample is a subsample representing 1% of the population. The 1970 sample consist of two IPUMS self-weighting subsamples: the 1% State sample (5% form) and the 1% State sample (15%) form, which together represent 2% of the population. The 1980, 1990, and 2000 samples are 5% Public use Samples. While the 1980 sample is self-weighting, the 1990 and 2000 sample are not and weights are used to return to random proportions. The 2001-2011 ACS sample represent about .4% of the population in years 2001-2004 and 1% thereafter.

Sample Restrictions

- Age: The sample includes individuals aged 21-65 in order to focus on the working-age population.
- Race: Only individuals reported as being black or white and non-hispanic are included the analysis.
- Earnings: In the results presented I exclude persons with negative earnings. Only a very small fraction of individuals have negative earnings.

Constructed Variables

- Wages: Wage=Annual Earnings/(Weeks worked*Hours worked per week). For the 1990-2000 censuses and the ACS annual earnings is available. For the 1950-1980 censuses comparable measures are derived by adding business and farm income. In 1940, individuals were only asked about their wage and salary income and hence my annual earnings measure of 1940 is restricted to wage and salary income. Weeks worked are provided in intervals and I take the midpoint of each interval. Hours worked (during the previous week) are provided as a continuous measure from 1980 onwards. For the 1940-1970 censuses interval measures of hours worked during the previous week are available and I again use the midpoint.
- Schooling: High school dropouts are those with less than 12 years of schooling for the 1940 to 1980 samples and those with less than a high school degree in the 1990 to 2011 samples. High school (College) graduates are those with 12 (16) or more completed years of schooling for the 1940 to 1980 samples and those with a high school (bachelors) degree or higher in the 1990 to 2011 samples. Graduate school attendants/graduates are those with more than 16 years of schooling for the 1940 to 1980 samples and those with schooling beyond college in the 1990 to 2011 samples. "Some college" individuals have in between 13 and 15 years of schooling for the 1940 to 1980 census and a high school but no college degree in the 1990 to 2011 samples.
- Labor force participation and employment are two important variables in the analysis. Both variables are coded refering to the individual 's status in the "previous week". This does not have to be the same week for all respondents, since the census or survey was taken over a period of time. In all years, labor force participants consist of employed and unemployed persons. Individuals are considered employed under three different circumstances:

1. They worked at least one hour for pay or profit during the reference period.
2. They worked at least 15 hours as "unpaid family workers".
3. They had a job from which they were temporarily absent (e.g., because of illness or vacation time).

- Incarceration: To estimate the proportion incarcerated I use the group-quarters identifier included in the PUMS data. The decennial Census enumerates both the institutionalized as well as the non-institutionalized population. See Butcher & Piehl (1998) and Johnson & Raphael (2006) for studies that also use the group quarter variable to identify the incarcerated.

CPS Data

This paper pools the 2008-2012 March CPS samples. Each sample year includes about 200,000 individuals from the non-institutionalized population. Weights are included to reflect sampling. Observations with imputed values are included but dropping them has minimal effects on the results.

Sample Restrictions

- Age: The sample includes individuals aged 21-65 in order to focus on the working-age population.
- Race: Only individuals reported as being black or white and non-hispanic are included the analysis.
- Earnings: In the results presented I excluded persons with negative earnings. Only a very small fraction of individuals have negtive earnings.

Constructed variables

- Wages: Wage=Annual Earnings/(Weeks worked*Hours worked per week). Annual earnings include earnings, farm and business income. Weeks worked and hours worked are provided as continuous measures.
- Schooling: Data on high school, college, and graduate school degrees are available. Individuals with more than an high school degree and less than a college degree fall into the “some college” category. Individuals with more than a college degree (whether they complete graduate school or not) count as graduate school attendants/ completers.
- Labor force participation and employment are comparable to those in the ACS/census.