

Idleness Convergence Between Black Immigrants and Black Natives Across and Within Generations*

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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%. Black immigrants' labor market outcomes surpass those of native blacks. This paper determines in how far the relative success of black immigrants is passed on to the second generation. If second generation males work, they earn a stunning 29% more than the first generation. But 28% of the black second generation do not work and do not attend school. The joblessness and year-round idleness experienced by many young black men in the US is spilling over to second generation blacks, and blacks who immigrate young. The upward convergence in idleness between black immigrants and black natives should not be thought of as a fixed parameter. Education is a dividing mark: For immigrants without a college degree the convergence is strong, for college-educated immigrants it is weak. Location-specific characteristics play an important role: Counties with high levels of racial segregation experience quicker convergence, highly educated counties experience slower convergence. Both discrimination and assimilation play an important role for the convergence between black immigrants and black natives. Controlling for one mechanism cuts the effect of the other in half as assimilation and discrimination coexist in many counties.

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1 Introduction

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 illustrates how black immigration from the West Indies and Africa exploded over the last few decades.

In 2012, black immigrant men earned close to \$9,000 or 36% more than black native men but the premium shrinks to \$3,000 or 8% once we condition on being employed. In other words, if black natives work they earn almost as much as black immigrants but many black natives don't work.

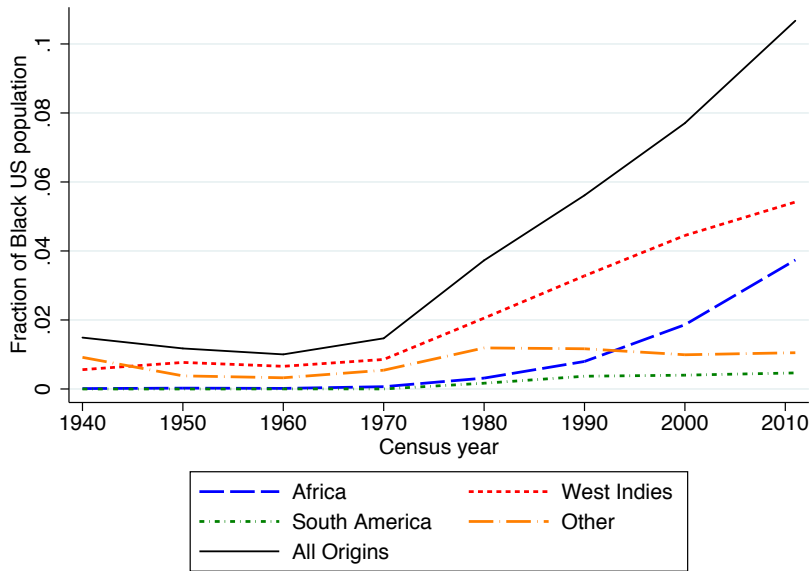
What about second generation blacks? In theory, two opposing forces affect the second generation. First, the parents of second generation blacks are relatively successful, which would point towards positive outcomes. Second, the economic outcomes of black natives, whom the second generation might identify with or be treated like, have stagnated over the past few decades, which would suggest negative outcomes.

Empirically, if the black second generation works, they earn even more than the first generation. But similar to black natives, many black second generation males don't work. Second generation blacks, as well as blacks who immigrate young, display idleness probabilities that lie in between those of their parents and those of black natives. In that sense, the idleness of second generation blacks converges to that of native blacks. But the convergence should not be thought of as a constant parameter; it varies with individual, as well as county-wide characteristics.

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 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.¹

¹Since 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 (Kollehlton & Eule 2003). Butcher (1994) finds that while male annual earnings of black immigrants overall lie 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 & Herring (1991) and Bogan & Darity (2008) evaluate entrepreneurship among black immigrants and find that self-employment rates are higher for immigrant blacks than native blacks. Hamilton (2010) is one of the only researchers to use post 2000 data to evaluate labor market differences of black immigrants and black natives.

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



Note: The sample is drawn from the decennial censuses from 1940 to 2000 and the 2001-2012 ACS.

The adoption of impairing “cultural traditions” by the second generation could be one reason for the convergence in idleness between black immigrants and black natives. Discrimination is another. Using Stephens-Davidowitz (2012)’s racially charged search measure, I find quicker idleness convergence in areas that have greater racial animus towards blacks.² Other location-specific characteristics also play an important role: Convergence is quickest in low-educated and highly segregated counties.

Less-educated black immigrants converge upward to the elevated idleness levels of black natives. College-educated black immigrants generally avoid being affected by the idleness levels of black natives, as well as the county level of racial housing segregation and education.

Both discrimination and assimilation independently play an important role for the idleness convergence between black immigrants and black natives. Controlling for one mechanism, however, cuts the effect of the other in half, suggesting that in many counties assimilation and discrimination coexist.

²I thank the author for providing his data.

2 Empirical Framework and Data Description

2.1 Data

I use the current population survey data (CPS) from 2000 to 2013, decennial census level data from 2000, and the IPUMS samples of the 2001 to 2012 American Community Survey (ACS). The second generation cannot be separately identified in the 2000-2012 census/ACS sample, since the surveys do not ask where an individual's parents were born. After 1993 the CPS includes answers to parents' birthplace and I use the data to draw distinctions between the first and second generation. The 2000 Census Summary File 3 contains location-specific information on counties. Racial animus data stem from the Stephens-Davidowitz (2012)'s racially charged search measure. In order to focus on the working age population I restrict the sample to people between the ages of 18 and 65.³

2.2 Descriptive Statistics for Individuals

Table 1.1a summarizes the most important variables for whites, black natives, and black immigrants. Table 1.2a adds the black second generation to the analysis.⁴ The average age differs significantly between the groups and since earnings increase steeply until the mid forties, Table 1.1b and 1.2b use inverse probability weighting to equalize the age distribution between all groups.

Table 1.1b compares education, employment, earnings, and marriage outcomes. In 2012, white males on average earn \$49,000. Native black workers earn less than half of that equaling \$24,200. Black immigrant workers average annual earnings equal \$33,000 and therefore earn about \$9,000 or 36% more per year than native black workers.

³Appendix C further discusses data limitation and procedures.

⁴The second generation includes people with at least one parent born abroad. 81% of the black second generation has parents that were both born abroad. Focusing on this subset does not change the main results.

Table 1.1a: 2012 Summary Statistics

	Whites	Blacks	Native Blacks	Immigrant Blacks
<u>Panel A: Men</u>				
Annual Earnings	47,200	23,100	21,900	33,000
Employed (%)	75.08	57.10	54.95	74.46
Idle (%)	20.03	35.19	37.29	18.34
Cond. Annual Earnings*	61,100	38,300	37,600	42,800
Age	42.17	39.20	39.02	40.67
Married (%)	53.37	32.85	30.42	52.46
Prison (%)	1.27	7.16	7.85	1.60
HS dropout (%)	6.35	13.36	13.99	8.22
HS (%)	37.56	45.19	46.47	34.92
Some College (%)	25.65	27.12	26.88	29.11
College (%)	19.96	9.88	9.01	16.89
Grad School (%)	10.47	4.44	3.64	10.86
Sample Size	644,400	101,200	91,100	10,100
<u>Panel B: Women</u>				
Annual Earnings	27,000	20,700	20,100	25,500
Employed (%)	67.01	61.25	60.28	68.98
Idle (%)	27.82	30.33	31.25	23.04
Cond. Annual Earnings*	39,000	32,400	31,900	35,700
Age	42.61	40.01	39.90	40.83
Married (%)	55.30	27.53	25.47	44.03
Prison (%)	0.29	0.65	0.71	0.18
HS dropout (%)	4.75	9.55	9.62	8.96
HS (%)	33.65	38.09	38.64	33.70
Some College (%)	28.33	32.67	32.92	30.68
College (%)	21.66	12.80	12.23	17.32
Grad School (%)	11.61	6.90	6.59	9.34
Sample Size	658,700	109,500	98,100	11,400

The sample consists of 18-65 years olds in the 2012 ACS. The differences between native blacks and immigrant blacks all have p-values smaller than .001 (except for women's HS dropouts, which has a p-value of 0.062). *Conditional outcomes only refer to employed individuals.

Table 1.1b: 2012 Summary Statistics (Age-Adjusted)

	Whites	Blacks	Native Blacks	Immigrant Blacks
<u>Panel A: Men</u>				
Annual Earnings	49,000	28,600	24,200	33,000
Employed (%)	77.66	66.01	57.56	74.46
Idle (%)	18.03	27.73	37.12	18.34
Cond. Annual Earnings*	61,500	41,400	39,800	42,800
Age	40.67	40.67	40.67	40.67
Married (%)	53.66	43.03	33.60	52.46
Prison (%)	1.34	4.85	8.10	1.60
HS dropout (%)	6.15	10.64	13.06	8.22
HS (%)	37.22	40.64	46.36	34.92
Some College (%)	25.64	27.96	26.81	29.11
College (%)	20.53	13.31	9.73	16.89
Grad School (%)	10.46	7.44	4.02	10.86
Sample Size	644,400	101,200	91,100	10,100
<u>Panel B: Women</u>				
Annual Earnings	28,300	23,700	21,900	25,500
Employed (%)	69.12	65.88	62.78	68.98
Idle (%)	26.21	26.93	30.82	23.04
Cond. Annual Earnings*	39,700	34,700	33,500	35,700
Age	40.83	40.83	40.83	40.83
Married (%)	56.45	35.77	27.50	44.03
Prison (%)	0.29	0.45	0.71	0.18
HS dropout (%)	4.56	9.06	9.15	8.96
HS (%)	32.12	35.69	37.69	33.70
Some College (%)	28.19	31.77	32.87	30.68
College (%)	23.01	15.19	13.07	17.32
Grad School (%)	12.12	8.28	7.23	9.34
Sample Size	658,700	109,500	98,100	11,400

The sample consists of 18-65 years olds in the 2012 ACS. All are reweighted to have the same age distribution as black immigrants. The differences between native blacks and immigrant blacks all have p-values smaller than .001 (except for age and women's HS dropouts, which has a p-value of 0.372). *Conditional outcomes only refer to employed individuals.

Table 1.2a: 2009-2013 Summary Statistics

	Whites	Bl. 1st Gen.	Bl. 2nd Gen.	Bl. Nat.	pval(1st-2nd)	pval(2nd-Nat)
<u>Panel A: Men</u>						
Annual Earnings	49,900	32,600	29,200	26,200	.113	.116
Employed (%)	77.29	75.38	66.63	59.78	.000	.000
Idle (%)	21.00	22.43	26.29	37.93	.047	.000
Cond. Annual Earnings*	61,500	40,500	40,200	40,000	.896	.941
Age	43.45	41.14	32.22	41.42	.000	.000
Married (%)	61.64	59.43	25.44	42.62	.000	.000
HS dropout (%)	6.34	11.53	6.13	13.31	.000	.000
HS (%)	30.57	28.48	21.99	40.91	.001	.000
Some College (%)	28.94	28.93	40.53	30.26	.000	.000
College (%)	22.69	19.41	22.92	11.07	.048	.000
Grad School (%)	11.45	11.65	8.42	4.45	.007	.000
Sample Size	180,100	3,700	837	24,500		
<u>Panel B: Women</u>						
Annual Earnings	27,600	24,200	24,000	21,600	.870	.117
Employed (%)	68.11	67.39	63.16	62.21	.036	.610
Idle (%)	30.15	30.21	27.01	35.37	.085	.000
Cond. Annual Earnings*	38,400	33,400	34,900	32,200	.491	.180
Age	43.77	41.76	33.39	41.78	.000	.000
Married (%)	64.15	56.78	26.99	36.68	.000	.000
HS dropout (%)	5.04	13.29	5.89	11.19	.000	.000
HS (%)	27.00	27.64	17.18	32.66	.000	.000
Some College (%)	31.99	30.15	36.98	35.44	.001	.406
College (%)	23.85	20.04	25.55	13.91	.002	.000
Grad School (%)	12.11	8.88	14.40	6.79	.000	.000
Sample Size	189,200	4,300	893	32,100		

The sample consists of 18-65 years olds in the March CPS samples from 2009-2013. Earnings are in 2010 Dollars. *Conditional outcomes only refer to employed individuals.

Table 1.2b: 2009-2013 Summary Statistics (Age-Adjusted)

	Whites	1st Gen. Blacks	2nd Gen. Blacks	Nat. Blacks	pval(1st-2nd)	pval(2nd-Nat)
<u>Panel A: Men</u>						
Annual Earnings	51,000	32,600	39,800	27,500	.081	.002
Employed (%)	79.86	75.38	69.65	61.78	.022	.001
Idle (%)	18.75	22.43	28.10	36.78	.022	.000
Cond. Annual Earnings*	61,100	40,500	52,200	40,700	.025	.025
Age	41.14	41.14	41.14	41.14	1	1
Married (%)	61.29	59.43	44.44	43.83	.000	.818
HS dropout (%)	6.25	11.53	5.61	12.82	.000	.000
HS (%)	30.46	28.48	20.88	40.96	.001	.000
Some College (%)	28.73	28.93	35.62	29.99	.011	.025
College (%)	23.33	19.41	25.24	11.57	.016	.000
Grad School (%)	11.23	11.65	12.65	4.65	.604	.000
Sample Size	180,100	3,700	837	24,500		
<u>Panel B: Women</u>						
Annual Earnings	28,200	24,200	30,000	22,300	.020	.001
Employed (%)	69.69	67.39	64.46	63.38	.238	.648
Idle (%)	28.64	30.21	31.73	34.64	.538	.219
Cond. Annual Earnings*	38,400	33,400	44,200	32,800	.000	.000
Age	41.76	41.76	41.76	41.76	1	1
Married (%)	64.36	56.78	38.15	37.68	.000	.851
HS dropout (%)	4.91	13.29	6.35	10.98	.000	.000
HS (%)	26.12	27.64	18.15	32.60	.000	.000
Some College (%)	31.96	30.15	31.85	35.24	.458	.117
College (%)	24.78	20.04	25.82	14.22	.010	.000
Grad School (%)	12.22	8.88	17.83	6.97	.000	.000
Sample Size	189,200	4,300	893	32,100		

The sample consists of 18-65 years olds in the March CPS samples from 2009-2013. Earnings are in 2010 Dollars. All are reweighted to have the same age distribution as immigrant blacks. *Conditional outcomes only refer to employed individuals.

Large differences in employment probabilities drive the black immigrant - black native gap, as black immigrants are 17 percentage points more likely to be employed than black natives. Since the difference in employment could be misleading if school attendance differed significantly between the two groups, the main focus of this paper lies on idleness, which captures the likelihood of neither being employed nor attending school. In line with the employment differences, black immigrants' probability of being idle lies 19 percentage points below that of black natives. Black immigrants are also much more likely to be highly educated, married, and not incarcerated.

Table 1.2b compares outcomes of the age-adjusted first and second generation. Sons of black immigrants are more educated and earn almost \$7,200 or 22% more than the average first generation black immigrant.⁵ The second generation generally follows the relatively successful path laid out by their parents but their attachment to the labor force poses an important exception. Black second generation men are 6 percentage points more likely to be idle; in other words, they have a 25% higher chance of neither working nor attending school.

Black second generation women earn more and acquire more schooling than black native, black first generation, and white women. In line with the male trend, black second generation women's idleness lies above that of the black first generation though the difference is much smaller.⁶ Since the idleness increase across generations for men dominates the increase for women, the following sections generally focus on men.⁷

In summary, black immigrants have higher earnings and employment probabilities than black natives. Their children keep and improve upon this head start in earnings, but lose much of it in employment.

⁵The second generation premium equals 7% white, 10% for Asian, and a striking 38% for Hispanic men.

⁶A meaningful interpretation of idleness for women requires the analysis of differential propensities to stay at home and raise children. Regression results in section 3.1 show that the difference in idleness persist when controlling for number of children and relationship patterns.

⁷Note that differences between the first and second generation extend beyond the economic to the social realm and are also present in marriage probabilities. While three in five blacks in the first generation are married, only about two in five of both natives and second generation blacks are married.

2.3 Descriptive Statistics for Location Factors

Native blacks often concentrate in impoverished areas, and consequently lack access to resources such as good jobs, schools, and nutrition. Similarly, they are more likely to be confronted with crime, grow up in single-parent households, and face other disadvantages. In determining whether and why the second generation on some levels converges to black natives, it's important to understand where they live. To get a sense of where black immigrants reside on a national scale, Figure 2 displays a map capturing the percentage in each county. Black immigrants concentrate in Florida and the Atlantic Coast. Smaller hubs are Minneapolis, Atlanta, Seattle, and Houston.⁸

The geographic level of analysis in the paper occurs at the county level. Measures of racial and income segregation are calculated using the standard dissimilarity index, which relies on splitting the sample into two groups. The index answers the question: what share of group 1 (or 2) members would need to change census tracts so that the two groups are evenly distributed within the county?⁹

Residential clustering and segregation vary considerably across counties (Table 3). The average county in 2000 has only .13% black immigrants but the level of black immigrants varies a lot. Hooker County in Nebraska has 0 black immigrants, New York's Kings County has 12.7%. The correlations in Table 3 yield that the percentage of black immigrants is positively correlated to the percentage of blacks, median income, population, housing and income segregation.

⁸Breaking up black immigrants by origin yields differential location patterns. The majority of blacks with Caribbean origins live in Florida, while the majority of blacks with African origins live along the Atlantic Coast.

⁹The exact calculations underlying the segregation indices are discussed in detail in section C of the Appendix.

Table 3: Means and Correlates of County-Level Location Measures in 2000

	Housing Seg.	Seg. Poor	College+ (%)	Black (%)	Black Imm. (%)	Med. Inc.	Pop.
count	759	980	3,141	3,141	3,141	3,141	3,141
mean	.478	.211	16.53	8.64	.129	35,370	89,596
sd	.131	.069	7.79	14.45	.475	8,916	292,462
min	.165	.056	4.88	0	0	9,333	67
max	.841	.423	63.75	86.08	12.66	82,929	9,519,338
Correlations							
Housing Seg.	1						
Seg. Poor	0.146***	1					
College+ (%)	-0.0991**	0.540***	1				
Black (%)	0.0558	0.332***	-0.0892***	1			
Black Imm. (%)	0.138***	0.218***	0.274***	0.186***	1		
Med. Inc.	-0.0973**	0.270***	0.655***	-0.186***	0.206***	1	
Pop.	0.200***	0.348***	0.308***	0.0709***	0.398***	0.280***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

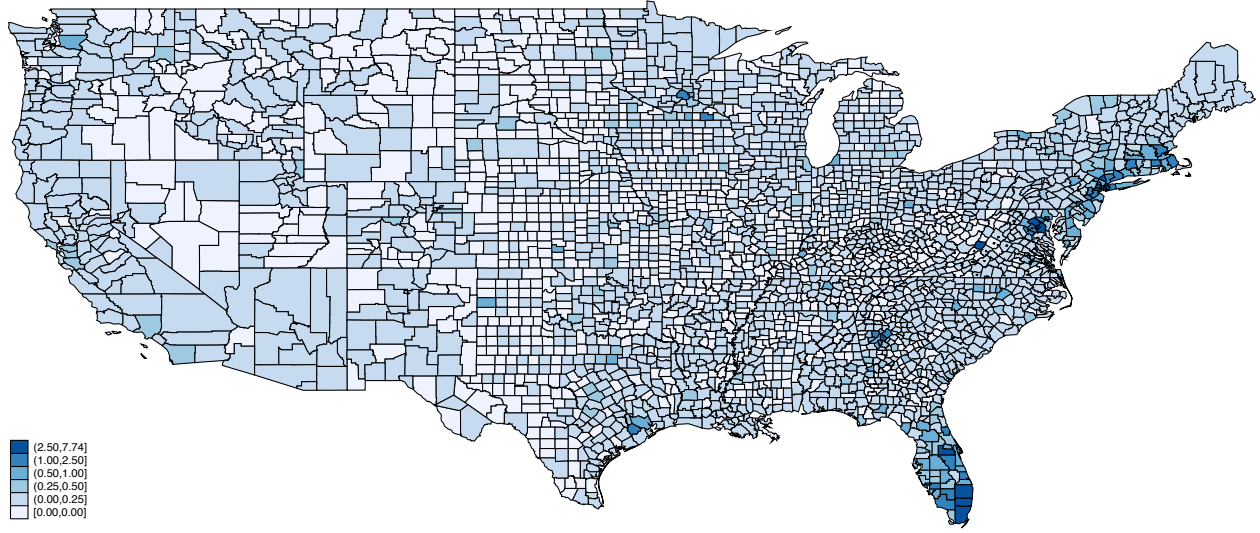
The sample is drawn from the 2000 Census Summary File 3. Segregation indices are calculated for counties with at least 10 tracts and at least 10,000 people. Housing segregation and segregation of the rich black and the poor black are further limited to counties with at least 1,000 blacks.

Table 4: Residential Clustering Across Generations

	All			Blacks		
	1st Generation	2nd Generation	Natives	1st Generation	2nd Generation	Natives
<u>Average Percentage of the County that is</u>						
Immigrant	23.90	21.05	12.32	24.78	24.96	13.59
Immigrant Black	1.96	1.55	0.85	4.96	4.58	1.63
Black	12.51	11.11	12.20	22.90	22.01	23.65
White	50.48	53.92	66.94	48.27	48.07	56.45
Hispanic	25.81	24.81	13.63	19.57	20.06	12.93
Asian	7.82	6.88	4.32	6.07	6.64	4.28
Employed	58.67	58.82	61.21	57.15	57.21	60.20
Married	50.32	51.22	52.16	46.40	46.92	47.64
Single Mother Households	7.47	7.33	6.99	8.94	8.80	8.52
No HS Degree	22.13	21.52	17.88	22.26	22.62	19.63
HS	23.41	24.13	26.89	25.69	25.77	26.49
Some College	27.06	27.44	28.48	25.02	25.03	27.32
College+	27.40	26.91	26.75	27.03	26.59	26.57
Below Poverty Line	2.82	2.58	2.76	5.17	4.99	5.28
Urban	95.57	94.00	89.32	97.25	96.97	93.46
<u>Other County Variables</u>						
Median Income	46,600	46,400	46,400	44,200	44,400	44,200
Sample Size	174,800	58,700	445,900	12,300	2,400	74,000

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3.

Figure 2: Percentage of Black Immigrants in US Counties



Note: The sample is drawn from the 2000 Census Summary File 3. The underlying estimates only capture immigrants from Africa and the Caribbean. Darker areas signify a higher number of black immigrants. Alaska and Hawaii are not shown.

How does residential clustering change as we move from the first to the second generation? The first three columns of Table 4 answer this question for the entire population, the last three columns answer it for blacks. The first row reports that the average immigrant resides in county where 24% of the population immigrated from another country, even though only 11% of the population is foreign-born. Residential clustering persists into the next generation with the average second generation member residing in a county with 21% foreign-born.¹⁰ The persistence is even stronger for blacks. In fact, all county characteristics of the average black second generation male look remarkably similar to those of a black first generation male.¹¹ Given that location choices are so similar across generations, we can rule out that drastic changes in location patterns are causing the idleness convergence.¹²

¹⁰The persistence of residential clustering across generations is in line with previous findings by Borjas (1995, 1998)

¹¹Breaking up the sample into those from African and Caribbean origin, by education level, and examining various segregation measures does not illuminate striking differences between the first and second generation (see Table B.1-B.3). Second generation members are assigned the country of the mother. If the mother is American, I assign the individual the country of the father.

¹²County characteristics differ between immigrants of African and Caribbean origin. As the first, second, and third row of Table B.1 indicate, blacks of Caribbean descent live in immigrant clusters, Africans less so. This holds true for the percentage of immigrants, the percentage of black immigrants, as well as the percentage of immigrants from the same country.

2.4 Relation to Outcomes

We learned that location patterns are probably not the sole cause of idleness convergence across generations; it remains to be seen whether they affect it. To examine the unadjusted relationship between location factors and idleness convergence, Table 5 divides counties into counties with high and low levels of various clustering and segregation measures.¹³ This facilitates the comparison of idleness probabilities between men of the the black first generation, the black second generation, black natives, and everyone in the two groups of counties.

Idleness generally correlates positively with racial housing segregation, the percentage of blacks, the percentage of black immigrants, and negatively with the percentage of college degrees, and segregation of the poor. Idleness probabilities increase considerably from the first to the second generation and therefore approach the black native rather than the overall group average. This holds true for all measures for which the sample is split into two groups. Splitting the sample into those with a college degree and those without, yields that the lower educated drive this pattern (Table 6 and 7). Second generation members with college degrees converge neither to black natives nor to the overall county average; their likelihood of being idle lies above that of the first generation, but it often lies below that of the black native as well as the county average.

Table 5-7 also include the following difference-in-differences estimates for each location measure:

$$\left[Idle_{High}^{Black\ 2nd\ Gen} - Idle_{Low}^{Black\ 2nd\ Gen} \right] - \left[Idle_{High}^{Black\ 1st\ Gen} - Idle_{Low}^{Black\ 1st\ Gen} \right] \quad (1)$$

which compares the effect of moving from a county with a low level of the location measure to a county with a high level of the location measure between the black first and the black second generation and

$$\left[Idle_{High}^{Black\ Natives} - Idle_{Low}^{Black\ Natives} \right] - \left[Idle_{High}^{Black\ 1st\ Gen} - Idle_{Low}^{Black\ 1st\ Gen} \right] \quad (2)$$

which compares the effect between black natives and the black first generation. Think of $Idle_{High}^{Black\ 2nd\ Gen}$ as the average idleness level of second generation blacks in counties with a high level of the particular

¹³The cutoff is based on the mean level of each measure across all people.

location measure. The other terms are defined analogously.

Across generations, the difference in difference estimates from equation (1) do not have enough power to uncover significant relationships between location measures and idleness convergence; the number of observations of second generation blacks is simply too low. The number of black natives and black first generation immigrants, on the other hand, are significantly higher. The estimates from equation (2) yield that increased levels of housing segregation between blacks and nonblacks and a decreased number of college graduates affect black natives more negatively than black immigrants.¹⁴

Since Table 5 looks at means at the nation level, we do not know whether the second generation converges to the black native average or the overall county average. If second generation blacks live in counties that are predominantly black or have characteristics that accompany predominantly black counties, convergence to the county average could appear as convergence to black natives.

Table 8 uses the following endogenous peer effects model to examine whether idleness more strongly correlates with the idleness of black natives or non-black natives in the county:

$$Idle = X'\beta + \beta_1 BlackNativeCountyIdleness + \beta_2 Non - BlackNativeCountyIdleness + \epsilon \quad (3)$$

The regression of own idleness on peer idleness is subject to the reflection and common shocks problem, leading to an upward-bias of the coefficients. Even though the coefficients cannot be interpreted as true peer effects, they can still be utilized to compare the relative importance of black native and non-black native county idleness. For both the first and the second generation, non-black native county idleness has no statistically significant correlation with individual idleness once we add basic controls. Black native county idleness, on the other hand, positively correlates with individual idleness of first and second generation blacks (column (2) and (6)). For the second generation, the coefficient close to one suggests that individual idleness in fact increases one-for-one with black native county idleness.¹⁵

¹⁴Table B.4 shows that these patterns carry over to women. With respect to the percentage of blacks and the percentage of black immigrants, black immigrant men's idleness is more negatively affected than that of black natives.

¹⁵Adding controls does not significantly alter the estimates (column(2) and column (6)).

Table 5: Preliminary Evidence on the Relation between Location Factors and Convergence for Black Immigrant Men

	Low				High			
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Housing Segregation</u>								
Housing Seg.	0.40	0.41	0.40	0.40	0.67	0.68	0.65	0.63
Idle (%)	17.85	21.58	27.80	18.08	21.82	28.73	34.73	19.69
Age	39.96	32.86	40.80	41.32	41.30	31.64	40.79	41.35
Sample Size	1,800	289	12,100	146,900	3,600	776	19,100	164,800
DID (2nd-1st): 3.18 (3.72)								
DID (Nat-1st): 2.96** (1.48)								
<u>Segregation of the Poor</u>								
Seg. of the Poor	0.22	0.22	0.23	0.22	0.30	0.30	0.31	0.30
Idle (%)	20.78	30.37	32.36	19.75	20.46	23.50	31.97	18.46
Age	41.80	30.25	40.81	41.84	40.17	33.65	40.78	40.99
Sample Size	2,200	459	9,700	126,500	3,200	608	21,500	195,900
DID (2nd-1st): -6.49* (3.38)								
DID (Nat-1st): 0.73 (1.44)								
<u>Percent With College Degree</u>								
College + (%)	21.76	22.10	20.98	21.25	35.33	34.57	34.57	35.31
Idle (%)	22.71	29.33	35.30	21.21	17.58	22.31	27.63	15.78
Age	41.54	31.89	40.74	41.38	39.96	32.02	40.86	41.30
Sample Size	2,900	618	15,300	178,900	2,600	449	16,000	143,500
DID (2nd-1st): -1.84 (3.41)								
DID (Nat-1st): -2.54* (1.41)								

This table is split across pages.

Table 5, continued

	Low				High			
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Percent Black</u>								
Blacks (%)	7.07	7.56	7.46	5.64	27.97	27.82	30.55	24.06
Idle (%)	17.41	26.11	31.32	18.38	21.71	27.33	32.49	20.19
Age	40.43	33.94	40.82	41.49	41.05	31.09	40.78	41.09
Sample Size	1,400	302	9,100	212,200	4,000	765	22,200	110,200
DID (2nd-1st): -3.19 (3.70)								
DID (Nat-1st): -3.18* (1.55)								
<u>Percent Immigrant Black</u>								
Black Immigrants (%)	0.50	0.49	0.39	0.33	6.42	7.05	4.13	4.26
Idle (%)	18.85	22.97	32.58	19.00	21.32	29.04	31.06	19.04
Age	39.63	34.01	40.93	41.45	41.41	30.85	40.48	40.96
Sample Size	1,700	383	20,100	257,400	3,700	684	11,100	65,000
DID (2nd-1st): 3.52 (3.75)								
DID (Nat-1st): -4.02*** (1.54)								

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3. The cutoff is based on the mean level of each measure across all individuals.

Table 6: Preliminary Evidence on the Relation between Location Factors and Convergence for Less-Educated Black Immigrant Men

	Low				High			
	No College		All		No College		All	
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Housing Segregation</u>								
Housing Seg.	0.40	0.40	0.40	0.40	0.67	0.68	0.65	0.63
Idle (%)	20.18	24.95	27.80	18.08	23.99	32.01	34.73	19.69
Age	39.15	30.90	40.80	41.32	41.00	30.93	40.79	41.35
Sample Size	1,200	185	12,100	146,900	2,600	529	19,100	164,800
DID (2nd-1st): 3.26 (4.69)								
DID (Nat-1st): 3.12* (1.80)								
<u>Segregation of the Poor</u>								
Seg. of the Poor	0.22	0.22	0.23	0.22	0.30	0.30	0.31	0.30
Idle (%)	22.69	33.41	32.36	19.75	23.06	27.08	31.97	18.46
Age	41.56	29.18	40.81	41.84	39.55	32.82	40.78	40.99
Sample Size	1,600	331	9,700	126,500	2,200	385	21,500	195,900
DID (2nd-1st): -6.60* (4.16)								
DID (Nat-1st): -0.76 (1.70)								
<u>Percent With College Degree</u>								
College + (%)	21.63	22.07	20.98	21.25	34.89	34.07	34.57	35.31
Idle (%)	24.32	32.45	35.30	21.21	20.48	25.60	27.63	15.78
Age	41.14	30.83	40.74	41.38	39.32	31.12	40.86	41.30
Sample Size	2,200	454	15,300	178,900	1,700	262	16,000	143,500
DID (2nd-1st): -2.90 (4.28)								
DID (Nat-1st): -3.83** (1.71)								

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Table 6, continued

	Low				High			
	No College		All		No College		All	
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Percent Black</u>								
Blacks (%)	7.06	7.74	7.46	5.64	27.53	27.76	30.55	24.06
Idle (%)	17.79	29.64	31.32	18.38	24.57	30.67	32.49	20.19
Age	39.59	33.23	40.82	41.49	40.75	30.04	40.78	41.09
Sample Size	968	197	9,100	212,200	2,800	519	22,200	110,200
DID (2nd-1st): -5.91 (4.63)								
DID (Nat-1st): -5.67*** (1.83)								
<u>Percent Immigrant Black</u>								
Black Immigrants (%)	0.52	0.49	0.39	0.33	6.70	7.38	4.13	4.26
Idle (%)	20.10	25.16	32.58	19.00	23.93	32.95	31.06	19.04
Age	38.56	33.62	40.93	41.45	41.17	29.59	40.48	40.96
Sample Size	1,200	260	20,100	257,400	2,600	456	11,100	65,000
DID (2nd-1st): 3.84 (4.30)								
DID (Nat-1st): -5.39*** (1.83)								

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3. The cutoff is based on the mean level of each measure across all individuals.

Table 7: Preliminary Evidence on the Relation between Location Factors and Convergence for Highly Educated Black Immigrant Men

	Low				High			
	College		All		College		All	
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Housing Segregation</u>								
Housing Seg	0.40	0.42	0.40	0.40	0.66	0.67	0.65	0.63
Idle (%)	13.11	15.30	27.80	18.08	15.92	20.23	34.73	19.69
Age	41.60	36.51	40.80	41.32	42.14	33.48	40.79	41.35
Sample Size	627	104	12,100	146,900	1,000	247	19,100	164,800
DID (2nd-1st): 2.12 (5.98)								
DID (Nat-1st): 4.12* (2.22)								
<u>Segregation of the Poor</u>								
Seg. of the Poor	0.22	0.22	0.23	0.22	0.31	0.30	0.31	0.30
Idle (%)	15.61	22.21	32.36	19.75	14.46	15.88	31.97	18.46
Age	42.43	33.12	40.81	41.84	41.61	35.41	40.78	40.99
Sample Size	602	128	9,700	126,500	1,100	223	21,500	195,900
DID (2nd-1st): -5.19 (5.58)								
DID (Nat-1st): 0.73 (2.22)								
<u>Percent With College Degree</u>								
College + (%)	22.18	22.20	20.98	21.25	36.15	35.44	34.57	35.31
Idle (%)	17.64	20.37	35.30	21.21	12.27	16.66	27.63	15.78
Age	42.79	34.91	40.74	41.38	41.13	33.57	40.86	41.30
Sample Size	700	164	15,300	178,900	967	187	16,000	143,500
DID (2nd-1st): 1.65 (5.55)								
DID (Nat-1st): -2.30 (2.15)								

This table is split across pages.

Table 7, continued

	Low				High			
	College		All		College		All	
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Percent Black</u>								
Blacks (%)	7.08	7.21	7.46	5.64	29.10	28.00	30.55	24.06
Idle (%)	16.59	19.33	31.32	18.38	14.27	18.55	32.49	20.19
Age	42.22	35.31	40.82	41.49	41.84	33.85	40.78	41.09
Sample Size	462	105	9,100	212,200	1,200	246	22,200	110,200
DID (2nd-1st): 1.55 (5.95)								
DID (Nat-1st): 3.47 (2.49)								
<u>Percent Immigrant Black</u>								
Black Immigrants (%)	0.48	0.49	0.39	0.33	5.65	6.19	4.13	4.26
Idle (%)	16.39	18.30	32.58	19.00	14.17	19.12	31.06	19.04
Age	41.74	34.85	40.93	41.45	42.06	34.06	40.48	40.96
Sample Size	592	123	20,100	257,400	1,100	228	11,100	65,000
DID (2nd-1st): 3.03 (5.6)								
DID (Nat-1st): -0.68 (2.39)								

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3. The cutoff is based on the mean level of each measure across all individuals.

Table 8: The Importance of Black Native County Idleness for the Individual Idleness Likelihood

	Black First Generation				Black Second Generation			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>Panel A: Men</u>								
Black Native Idleness	0.259** (0.112)	0.278** (0.110)	0.370** (0.148)	0.129 (0.148)	0.926*** (0.249)	0.921*** (0.250)	1.208*** (0.336)	-0.0299 (0.383)
Non-Black Native Idleness	0.424** (0.214)	0.181 (0.213)	0.121 (0.286)	0.344 (0.281)	-0.204 (0.501)	-0.381 (0.504)	-0.431 (0.651)	0.465 (0.785)
Observations	4378	4378	3068	1310	899	899	610	289
Adjusted R^2	0.011	0.043	0.023	0.040	0.023	0.067	0.057	-0.017
<u>Panel A: Women</u>								
Black Native Idleness	0.201* (0.121)	0.0915 (0.119)	0.157 (0.145)	0.179 (0.207)	0.688*** (0.228)	0.516** (0.234)	0.864** (0.355)	0.0729 (0.293)
Non-Black Native Idleness	0.0464 (0.176)	0.0398 (0.174)	0.0637 (0.206)	-0.250 (0.325)	-0.0952 (0.334)	-0.114 (0.339)	-0.274 (0.496)	0.161 (0.409)
Observations	5797	5797	4305	1492	1185	1185	703	482
Adjusted R^2	0.001	0.043	0.016	0.010	0.010	0.078	0.058	0.002
Year Fixed Effects		X	X	X		X	X	X
Pot. Exp. Quadratic		X	X	X		X	X	X
Schooling		X				X		
No College only			X				X	
College only				X				X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. Black native idleness captures the percentage of black native men in the county that are idle. Non-black native idleness is defined analogously.

Splitting the black second generation sample into those with a college degree and those without (column (7) and (8)) confirms the takeaway from Table 6 and 7; it is indeed the less educated black second generation that drives the strong positive correlation between black native county idleness and individual idleness. It seems that highly educated first and second generation blacks avoid being affected by the idleness of county inhabitants.

2.5 Econometric Model

We've learned that the likelihood of idleness differs significantly between black men of the first and second generation. Let us look at more subtle differences in idleness probabilities between and across generations. The basic econometric model to evaluate the convergence of black immigrants across generations is presented in 2.5.1, and the convergence within generations in section 2.5.2.

2.5.1 Convergence Across Generations

Using individual level data, we want to control for education, potential experience, state and year fixed effects and compare the coefficient of the black first and second generation. Econometrically, the analysis is of the form

$$Idle = X'\beta + \beta_1 First + \beta_2 Second + \varepsilon \quad (4)$$

where X are the controls. The coefficients β_1 and β_2 measure how much outcomes of the black first and second generation compare to those of natives.

2.5.2 Convergence Within a Generation

If there is convergence across generations, it seems reasonable to think there might be convergence within a generation. If first generation immigrants arrive in the US earlier, they assimilate more with natives. This could lead to increased discrimination if stereotypes associated with black natives are more harmful than those associated with black immigrants. The earlier people immigrate the less likely they are to have made that decision themselves, which decreases positive self-selection. Fewer hardship

experiences forged by life events in the source country might lead to less intrinsic motivation. These three influences suggest a negative relation between age of immigration and idleness.

On the other hand language proficiency and ease of integration decline monotonically with age of immigration. These two influences suggest a positive relation between age of immigration and idleness.

To see how the counteracting forces play out empirically, let's work with the following model

$$Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \varepsilon \quad (5)$$

where X are the controls and m denotes age of arrival indicators. The coefficients β_{1m} measure how much idleness of varying age of arrival groups compares to natives.

3 Basic Convergence Results

3.1 Across Generation Convergence Results

Panel A and B of Table 9 estimate equation (4) for black men and women. Column (1) includes all immigrants. Column (2) limits first generation immigrants to those who spent over 10 years in the US. All else equal, a second generation male is about 9 percentage points $(-.106 - (-.0155))$ more likely to be idle than a first generation male. When we exclude recent immigrants, the increase increases to close to 10 percentage points.¹⁶

As discussed in Section E of the Appendix, the welfare program eligibility requirements for immigrants are complex and much more restricted than those for the second generation who generally are citizens. The simplest and most crude way to deal with the welfare program eligibility requirements, is to restrict the sample to US citizens (column (3)). US citizens, *ceteris paribus*, face the same eligibility requirements and hence the first and second generation can be compared readily. The first generation remains 10 percentage points less likely to be idle. Eligibility requirements of welfare programs alone cannot possibly explain the convergence to native black employment patterns.

¹⁶The increase in the coefficient on first generation immigrants suggest that there is negatively selected return migration.

Table 9: Convergence in Idleness Probabilities Across Generations for Blacks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Panel A: Men</u>							
First Generation	-0.106*** (0.00618)	-0.109*** (0.00741)	-0.114*** (0.00803)	-0.0950*** (0.00616)	-0.0862*** (0.00616)	-0.144*** (0.00766)	-0.00532 (0.00983)
Second Generation	-0.0155 (0.0134)	-0.0128 (0.0134)	-0.0125 (0.0134)	-0.0201 (0.0133)	-0.0240* (0.0133)	-0.0302* (0.0164)	0.0351 (0.0229)
Observations	66653	63859	62786	66653	66653	54213	12440
Adjusted R^2	0.112	0.114	0.115	0.124	0.132	0.097	0.073
<u>Panel B: Women</u>							
First Generation	-0.0406*** (0.00609)	-0.0808*** (0.00693)	-0.0929*** (0.00733)	-0.0406*** (0.00609)	-0.0402*** (0.00611)	-0.0654*** (0.00730)	0.0351*** (0.0107)
Second Generation	-0.00609 (0.0115)	-0.00731 (0.0115)	-0.00697 (0.0115)	-0.00613 (0.0115)	-0.00645 (0.0115)	-0.0168 (0.0153)	0.0240 (0.0168)
Observations	88228	85128	83977	88228	88228	69886	18342
Adjusted R^2	0.105	0.111	0.113	0.105	0.105	0.089	0.052
Exclude Imm, <10 years		X					
Citizens only			X				
Any Children				X	X		
Rel. Status					X		
No College only						X	
College only							X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

All regressions control for schooling, a quadratic in potential experience, state and year fixed effects, and an urban indicator.

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013.

Table 10: Convergence in Idleness Probabilities Across Generations for all Races

	(1) Blacks	(2) Hispanics	(3) Asians	(4) Whites
<u>Panel A: Men</u>				
First Generation	-0.106*** (0.00618)	-0.0984*** (0.00389)	-0.0239*** (0.00824)	-0.0133*** (0.00303)
Second Generation	-0.0155	-0.0212***	-0.00251	0.00963***
Observations	63859	85875	29277	405597
Adjusted R^2	0.114	0.074	0.081	0.115
<u>Panel B: Women</u>				
First Generation	-0.0406*** (0.00609)	0.0668*** (0.00422)	0.0493*** (0.00921)	0.0728*** (0.00372)
Second Generation	-0.00609 (0.0115)	-0.0251*** (0.00484)	-0.0488*** (0.0110)	0.000402 (0.00368)
Observations	85128	91638	32396	427853
Adjusted R^2	0.111	0.096	0.081	0.089

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

All regressions control for schooling, a quadratic in potential experience, state and year fixed effects, and an urban indicator. The sample consists of 18-65 years olds in the March CPS samples from 2000-2013.

Controlling for children and relationship patterns dampens the generation difference in idleness slightly but doesn't close the large gap between the first and second generation.¹⁷¹⁸ Column (6) restricts the sample to people without a college degree. The difference in idleness between generations now reaches close to 11 percentage points; yet again the convergence emerges strongest for the less-educated.

Women display a similar pattern although the increase in the likelihood of neither working nor attending school is smaller, hovering around 4 percentage points. For women, excluding recent immigrants more than doubles the coefficient on the first generation. A possible explanation for the jump is that negatively selected return migration plays a larger role for women than it does for men.

Is the increase in idleness when moving from the first to the second generation a distinctly black

¹⁷The regression controls for children by adding an indicator capturing whether there are any children present in the household. Relationship status consists of two dummies indicating whether the individual is married or cohabiting.

¹⁸The controls up to this point do not help detect whether a spike in stay-at-home-dads across generations is causing the idleness difference. Table B.5 helps us dismiss this possibility since the idleness difference across generations is smallest for men with children in the household.

phenomenon or can it be found in all races? Table 10 shows that other races also experience an increase in idleness from the first to the second generation, though smaller than the increase experienced by blacks. Hispanic, Asian, and white men increase their likelihood of being neither employed nor attending school by 7, 2, and 2 percentage points.

3.2 Within Generation Convergence Results

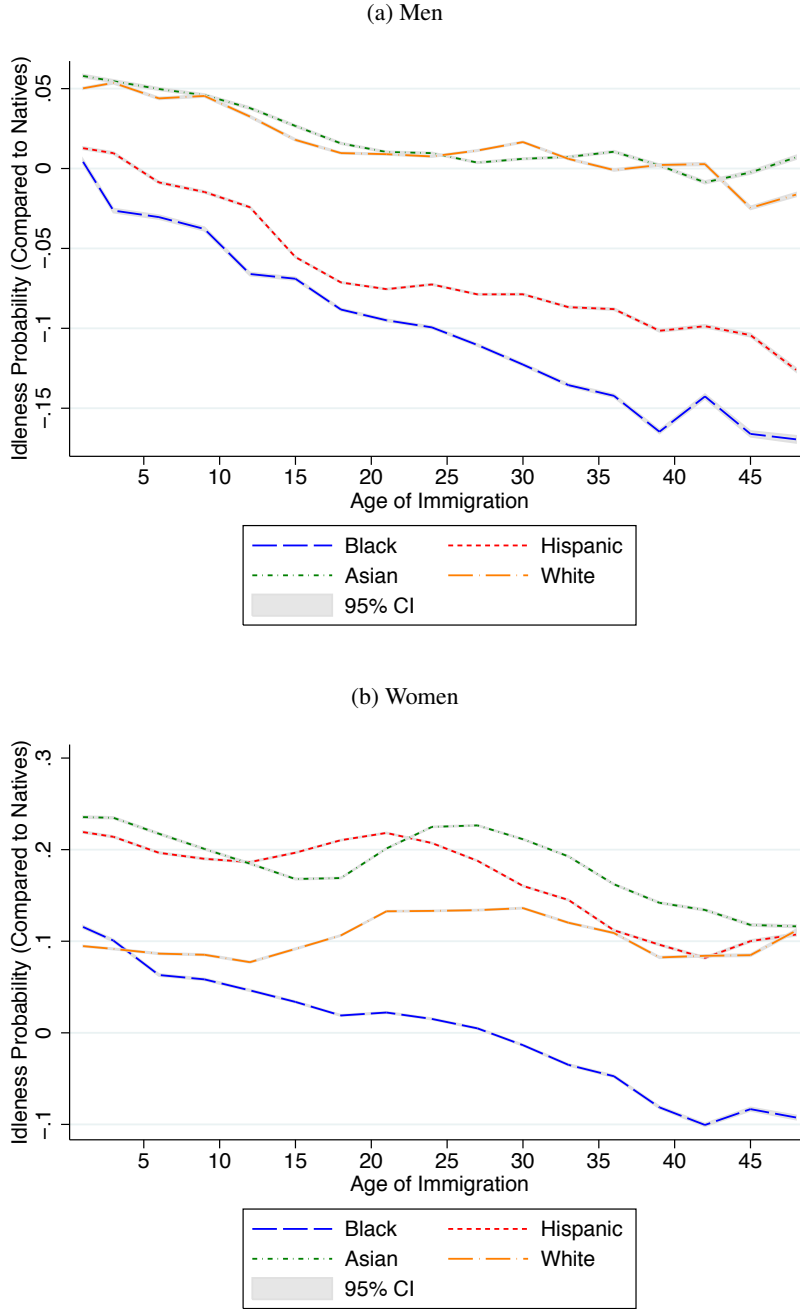
Since we find convergence in idleness across generations, we would expect there to be a similar convergence within generations. Regressions underlying Figure 3a and 3b test this hypothesis by running idleness on a set of controls and age of immigration dummies as equation (5) describes.

Figure 3a shows a downward-sloping trend in idleness by age of immigration for all races. As the coefficients for black and Hispanic men start near zero, the immigrant groups portray the same idleness patterns as natives when they immigrate as newborns. Similar to the across-generation analysis, blacks experience the greatest gradient in idleness in the within generation analysis. All else equal, a male black immigrating in his late thirties is 15 percentage points less likely to be idle than a black immigrant who arrives as a newborn. In contrast to men, black women are actually more likely to be idle than natives if they arrive before the age of 27. The strong negative gradient between the likelihood of idleness and age of immigration, however, emerges just as clear as it does for men.

Table 9 showed across generation convergence to be particularly pronounced for less educated immigrants. To see whether the same holds for the within generation analysis, Figure 4a and 4c restrict the sample to people without a college degree. Now black immigrant men and women who arrive in their late thirties have a 20 percentage point lower probability of neither working nor attending school than blacks who arrive when they are infants. For college graduates the downward trend in idleness by age of immigration is much less steep and even flat for some races (Figure 4b and 4d). For college-educated immigrant men and women, blacks included, the likelihood of being idle actually lies above the idleness likelihood of natives for all ages of immigration.

Self-selection likely gains importance as age of immigration increases. If immigrants in their 30s migrate to the US, they are probably migrating in order to find a job. Hence we would expect idleness behavior of their peers to be less important. But the mechanism behind convergence extends beyond

Figure 3: Convergence in Idleness Probabilities Within Generations



Note: The figures plot β_{1m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \epsilon$, where m denotes age of immigration indicators. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to natives of the same race. All regressions control for education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in three year bins.

self-selection. Children under the age of 15 are probably accompanying their parents and not selecting to leave their home country on their own. The downward-sloping pattern holds for young children as well as adults.

Another way to get a sense of the self-selection is to evaluate whether convergence differs between refugees and economic migrants. These two groups have different motives for moving to the US. While refugees are often fleeing political or religious persecution, economic immigrant's main motive is usually work related. Figure A.1c and A.1d show that economic migrants who immigrate as adults indeed do not experience any downward trend in idleness whereas refugees do. This strengthens the argument that we should focus on immigrants who arrive in the US before the age of 15 if we want to single out the causal link between age of immigration and idleness convergence.

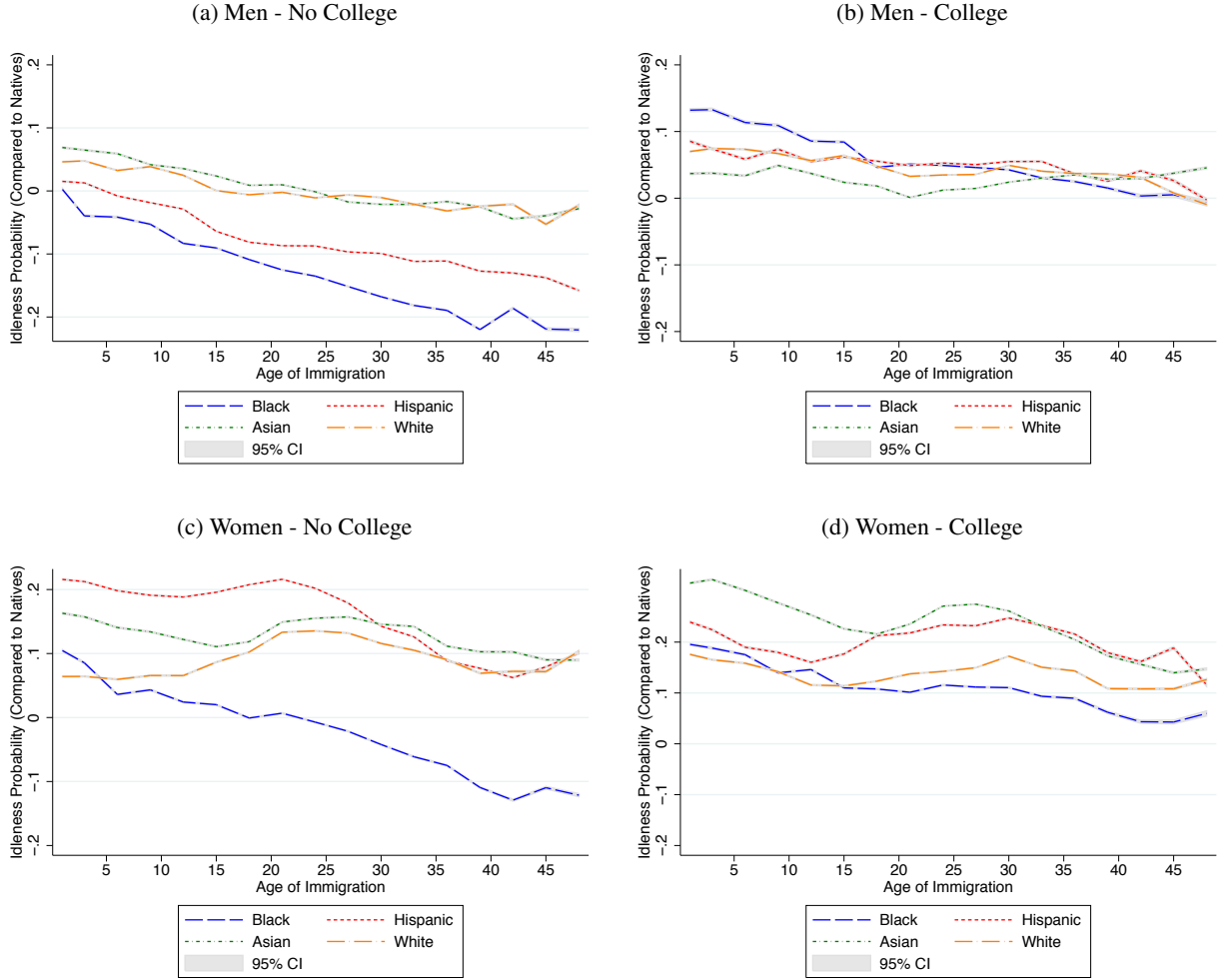
3.3 Robustness Check

Focusing on those who immigrate before the age of 15, the possibility remains that parents who immigrate when their child is an infant might be different from parents who immigrate when their child is a teen. In order to address the issue, we can look at children who still live with their parents and see whether there are any apparent differences in parental characteristics across the age of immigration of the child.

Restricting the sample to children and teenagers that are 15 or younger in the 1990 census allows for most people to be old enough to hypothetically make it into the 2000-2012 adult sample without having to work with the coarse 5-year year of immigration bins in earlier censuses. Figures 5a and 5b show the results of regressing log earnings of the household head and family log income on age of immigration dummies by race. The regression controls only for years spent in the US because of the well-established fact that immigrant earnings increase significantly with time spent in the US. A child who immigrated as an infant likely has parents who have been in the US longer than a 15-year-old who just immigrated. We can see that for blacks, Asians and whites, no clear up- or downward trend emerges that holds for both earnings measures. For Hispanics the downward trend suggests that parents who immigrate with infants are more positively selected in terms of earnings power than Hispanics who immigrate with an older child.

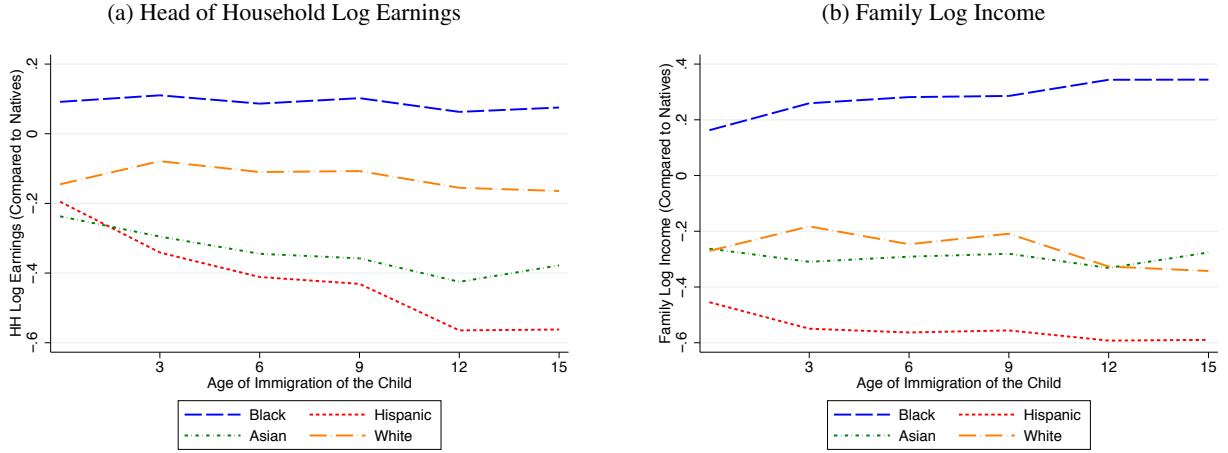
Figure A.2 depicts the same results without controlling for time in the US and indeed all of earn-

Figure 4: Convergence in Idleness Probabilities Within Generations by Education



Note: The figures plot β_{1m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \epsilon$, where m denotes age of immigration indicators. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to natives of the same race. All regressions control for education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in three year bins.

Figure 5: Parental Outcomes by Age of Immigration of the Child



Note: The figures plot β_{1m} from the regression $Outcome = \sum \beta_{1m}m + Years\ USA + \varepsilon$, where m denotes age of immigration indicators. The sample consists of 0-15 year olds in the 1990 census. Outcomes are compared to natives of the same race. All regressions control for time spent in the US. Age of immigration is in three year bins.

ings/income - age of immigration gradients are now downward-sloping. If we take this specification to be correct, the downward trend strengthens the convergence story. Black parents who immigrate with an infant are more positively selected in terms of earnings power, and yet, their children are more likely to be idle.

4 Accounting for Location Factors

This section combines the work on convergence across and within generations provided in section 3 with the evidence on the variation in residential clustering and segregation from section 2.4. To examine whether location factors affect the rate of convergence between black immigrants and black natives, we would want to adjust equation (4) to include various residential clustering and segregation measures as well as their interaction with first and second generation indicators. The small sample of black second generation men and women in the CPS precludes us from obtaining any conclusive evidence. Hence, this section focuses on the within generation analysis, which makes use of the ACS/census data allowing for much larger samples. Let's use the following model

$$Idle = X'\beta + \beta_1 Age\ of\ Imm. + \sum_{j=1}^J \beta_{2j} Meas_j + \sum_{j=1}^J \beta_{3j} Age\ of\ Imm. * Meas_j + \varepsilon \quad (6)$$

where idleness is measured at the individual level, and location measures are county-wide. All location measures are standardized to their z-score. Table 11 reveals that in almost all cases, the effect of having a higher percentage of blacks, black immigrants, and county residents with a college degree significantly reduces the likelihood of idleness for black natives whereas higher housing and income segregation increases the probability of being idle for black natives.

The cross effect with age of immigration is largest for housing segregation and the county percentage with college degrees. Having higher housing segregation and less college graduates in the county has a greater negative effect on black natives than on black immigrants and a greater negative effect on immigrants who entered when they were younger versus older. Column (3) and (4) of Table 11 yield that less-educated blacks drive the results as blacks with a college degree yet again avoid being heavily affected by location factors.

To explore the interaction of age of immigration with housing segregation and the percentage of college graduates non-parametrically, equation (5) is adjusted and becomes

$$Idle = X'\beta + \sum_{m=1}^M \beta_{1m} m + \sum_{j=1}^J \beta_{2j} Meas_j + \sum_{j=1}^J \sum_{m=1}^M \beta_{3jm} m * Meas_j + \varepsilon \quad (7)$$

where $J = 2$ and the two measures are housing segregation and the percentage of college graduates. The coefficients of interest are β_{3jm} for all ages of immigration m and the particular location measure j .¹⁹ Figures 6a, 6b, 6c, and 6d plot the coefficients for housing segregation (Figures 6a and 6b) and the percentage of college graduates (Figures 6c and 6d). As expected, the effect of housing segregation is negatively related to age of immigration whereas the effect of the percentage of college graduates is positively related to age of immigration. In other words, black immigrants' idleness responds more sensitively to the housing segregation and education level of their county the earlier they immigrate.

¹⁹The evolution of β_{1m} s, the coefficients in front of various ages of immigration m , remain essentially unchanged compared to the baseline model in (5) (see Figure A.3a and A.3b).

Table 11: Convergence in Idleness Probabilities Within Generations for Black Immigrant Men by Location Factors

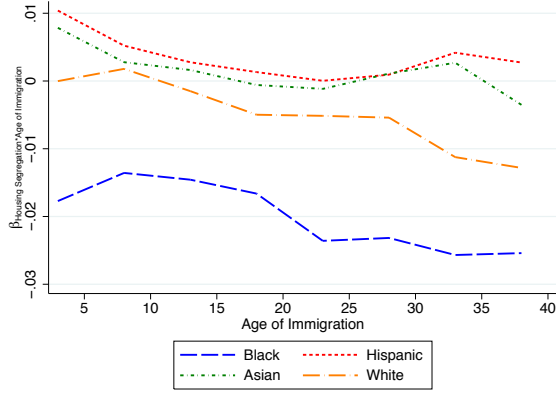
	(1)	(2)	(3)	(4)
Age of Immigration	-0.00516*** (0.000215)	-0.00444*** (0.000221)	-0.00558*** (0.000266)	-0.000386 (0.000359)
<u>Housing Segregation</u>				
Hous. Seg.	0.0334*** (0.000827)	0.0281*** (0.000803)	0.0345*** (0.000922)	0.0117*** (0.00154)
Hous. Seg.*Age Imm.	-0.000936*** (0.0000765)	-0.000931*** (0.0000786)	-0.000932*** (0.0000952)	-0.000396*** (0.000126)
<u>Segregation of the Poor</u>				
Seg. Poor	0.00466*** (0.00134)	0.00705*** (0.00130)	0.00536*** (0.00149)	-0.000631 (0.00252)
Seg. Poor*Age Imm.	0.0000343 (0.000127)	-0.0000357 (0.000131)	-0.000125 (0.000155)	0.000587*** (0.000218)
<u>Percent College Degree</u>				
College	-0.0342*** (0.000910)	-0.0236*** (0.000885)	-0.0301*** (0.00105)	-0.0113*** (0.00153)
College*Age Imm.	0.000865*** (0.0000721)	0.000766*** (0.0000736)	0.000728*** (0.0000945)	0.000158 (0.000109)
<u>Percent Black</u>				
Black	-0.00839*** (0.000830)	-0.0120*** (0.000805)	-0.00988*** (0.000922)	-0.00595*** (0.00153)
Black*Age Imm.	0.000134 (0.0000866)	0.000597*** (0.0000891)	0.000275** (0.000113)	-0.0000621 (0.000130)
<u>Percent Immigrant Blacks</u>				
Imm. Black	-0.000536*** (0.000183)	-0.0000173 (0.000176)	-0.000343* (0.000202)	0.00116*** (0.000366)
Imm. Black*Age Imm.	0.0000665*** (0.0000126)	-0.0000293** (0.0000129)	0.0000542*** (0.0000152)	-0.0000162 (0.0000222)
Schooling	X			
No College	X			
College	X			
Observations	645736	645736	548635	97101
Adjusted R^2	0.060	0.117	0.053	0.066

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

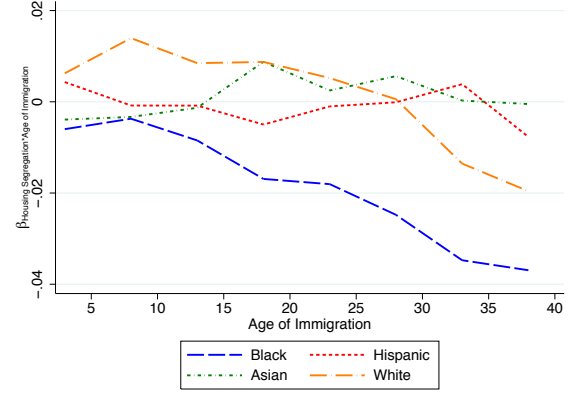
Housing segregation, segregation of the poor, percent black, percent black immigrant, and percent with a college degree are all normalized to their z-score. All regressions control for a quadratic in potential experience, years in the US, and the annual unemployment rate. The sample consists of 18-65 year olds in the census/ACS samples from 2000-2012.

Figure 6: Housing Segregation, Percentage of College Graduates & the Convergence in Idleness Probabilities

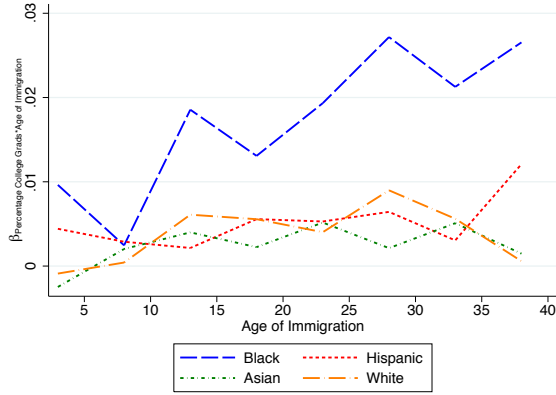
(a) Housing Segregation & Idleness Probabilities by Age of Immigration for Men



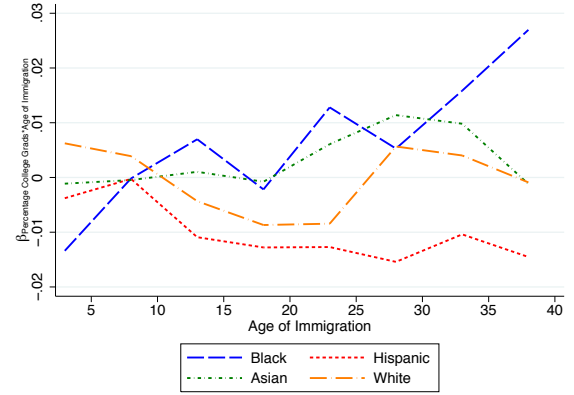
(b) Housing Segregation & Idleness Probabilities by Age of Immigration for Women



(c) Percentage of College Grads & Idleness Probabilities by Age of Immigration for Men



(d) Percentage of College Grads & Idleness Probabilities by Age of Immigration for Women



Note: The figures plot β_{3jm} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \sum_{j=1}^J \beta_{2j}Meas_j + \sum_{j=1}^J \sum_{m=1}^M \beta_{3jm}m * Meas_j + \epsilon$, where m denotes age of immigration indicators. $Meas_j$ is the z-score of the housing segregation index in a) and b) and the z-score of the percentage of college graduates in c) and d). The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to natives of the same race. All regressions control for individual education, potential experience, time spent in the US, and the annual unemployment rate. The county controls are the percentage of blacks, the percentage of black immigrants, and the segregation of the poor. Age of immigration is in five year bins.

5 Idleness Convergence Explanations

There are five potential explanations for the convergence of black immigrants to black natives across and within generations that this paper will discuss.

First, this paper uses cross-sectional data, and Borjas (1985, 1994) finds that cross-sectional regressions can yield erroneous insights about the convergence process experienced by immigrants if there are productivity differences across immigrant cohorts. He finds that there has been a decline in the relative skills of successive immigrant waves; furthermore he states that this decrease in cohort quality has falsely been interpreted as convergence in earnings between immigrants and natives by Chiswick (1978) and others. Do cohort effects explain idleness convergence? If cohort quality is decreasing over time, then in the cross-section the second generation should be more positively selected than the first.²⁰ And yet the second generation is more idle than the first. Hence, cohort effects actually strengthen but don't explain the idleness convergence finding.²¹

Second, immigrants are likely to be favorably selected in terms of motivation, dedication, and other cognitive and non-cognitive skills not captured in years of education and location choice. These might only get partially transmitted to the next generation. As I said earlier, the causal mechanism behind convergence extends beyond self-selection. Children under the age of 15 are probably accompanying their parents and not selecting to leave their home country on their own. The downward-sloping pattern holds for young children as well as adults.

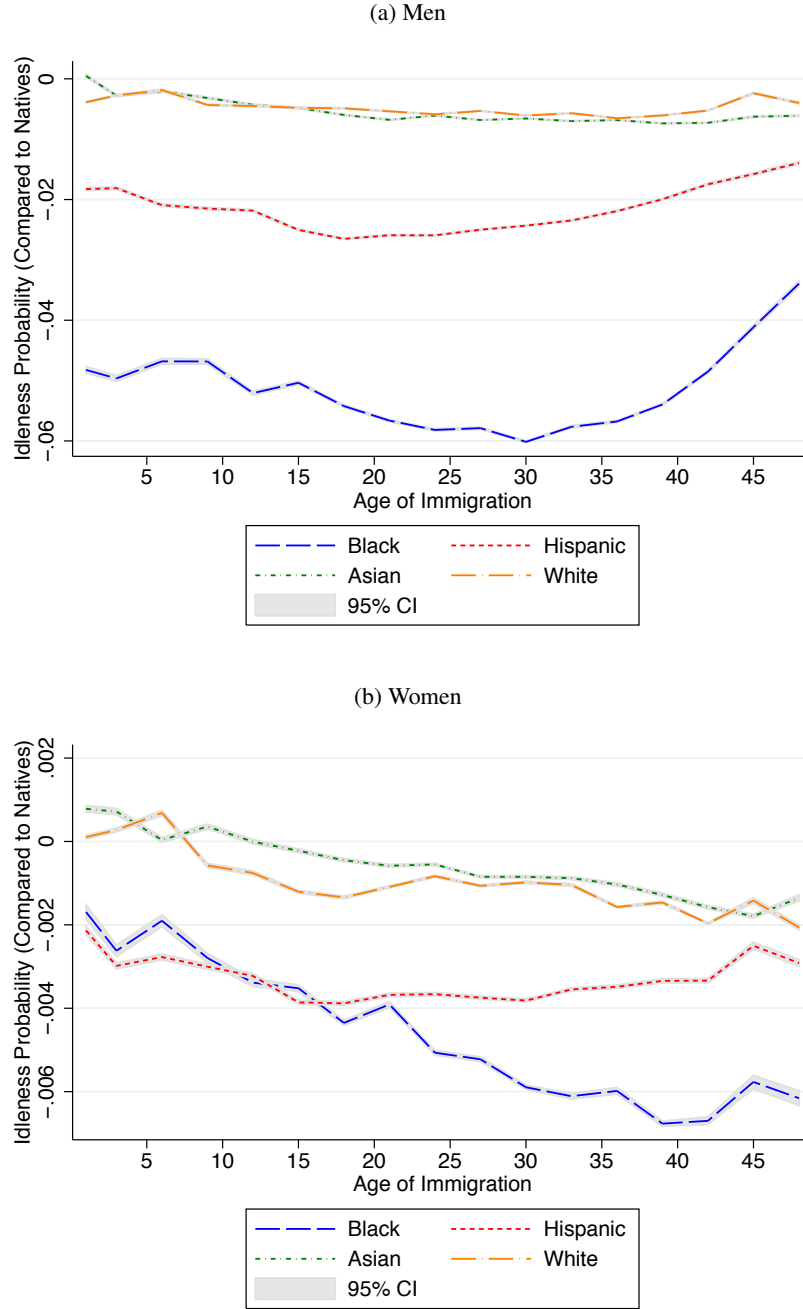
Third, the idleness convergence patterns could be driven by incarceration patterns if the black second generation and black immigrants who arrive young are more likely to be incarcerated. Given that so many young black males are currently incarcerated, this is an important channel to consider. In order to test this hypothesis, Figure 7 uses the baseline model introduced in (5) for incarceration instead of idleness. While there is a negative gradient for black immigrant males who enter the US before age 30 (and an increase thereafter), the drop of 1.7 percentage points over 30 years cannot explain the 15 percentage point idleness drop observed in Figure 3a.²²

²⁰Tables B.8-B.10 display evidence that cohort quality of black immigrants has indeed been declining over time.

²¹Cohort effects could still be a confounding factor if age of immigration has decreased significantly over time. But it has not; it has increased (Figure A.4).

²²For women the slope is steep but the levels are too small to explain idleness convergence.

Figure 7: Convergence in Incarceration Probabilities within Generations by Age of Immigration



Note: The figures plot β_{1m} from the regression $Incarcerated = X'\beta + \sum_{m=1}^M \beta_{1m}m + \varepsilon$, where m denotes age of immigration indicators. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Incarceration is compared to natives of the same race. All regressions control for education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in three year bins.

Fourth, the convergence across and within generations could be explained by the “fade to black” phenomenon discussed in the sociology literature.²³ Outcomes of black natives, whom the second generation might identify with, have stagnated over the past few decades, which would suggest negative assimilation for blacks.

Fifth, black immigrants may not face the same potential discrimination and prejudice that native blacks do. This could be due to a distaste for native blacks or statistical discrimination. Immigrant blacks differ recognizably from native blacks in that they are likely to have an accent. An accent possibly works as a plus in the labor market for blacks, increasing interview and on the job success. Growing up in the US, the second generation and immigrants who arrived early do not have an accent. While their names might hint at an African or Caribbean origin, they blend into native blacks more smoothly than do immigrant blacks. Figure 3a and 3b suggest that the elimination of the immigration signal might impose a penalty.

The next two sections focus on discrimination and assimilation as two possible explanations.

5.1 Discrimination and Convergence

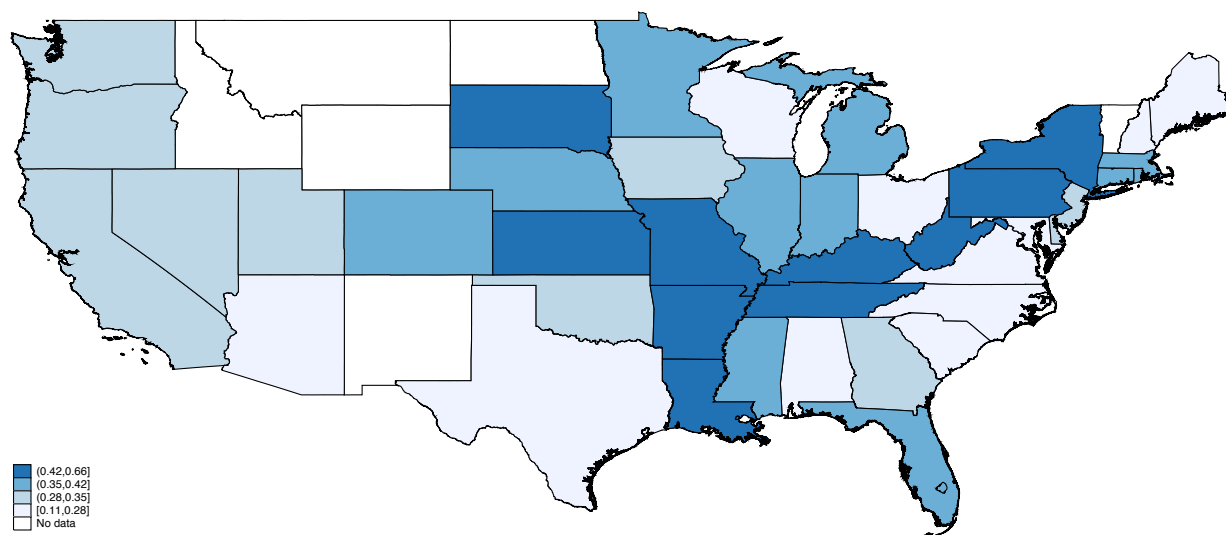
The map in Figure 8 plots the gradient between idleness and age of immigration for each state in the US. The states with the highest gradients are Arkansas, South Dakota, West Virginia, Missouri, and Louisiana.

The map in Figure 9 shows a non-survey proxy for racial animus that Stephens-Davidowitz uses in his 2012 paper.²⁴ Stephens-Davidowitz uses Google search queries that include racially charged searches to capture the racial attitude of media markets, though Figure 9 only makes use of the coarser estimates for states. The states with the highest rates of racist searches are West Virginia, Louisiana, Pennsylvania, Mississippi, and Kentucky.

²³Waters (1999) and Kasinitz *et al.* (2001) study the identity formation of children of West Indian immigrants. They identify three main responses by the second generation. Some choose an immigrant identity, stressing national origins. Others choose a purely American and therefore African-American identity and “fade to black”. Finally some choose something in between or what Kasinitz *et al.* call “an ethnic response” and carry a Caribbean-American identity or African-not native-American identity. They point out that this might be unsuccessful if whites do not recognize the difference. Empirically, Kasinitz *et al.* find some evidence that among West Indians in Florida the grade point averages of the second generation are actually lower than those of first. Suarez-Orozco & Suarez-Orozco (2001) find that greater length of residence in the US is associated with lower academic motivation. These studies are closely linked to the “second-generation decline” theory by Gans (1992).

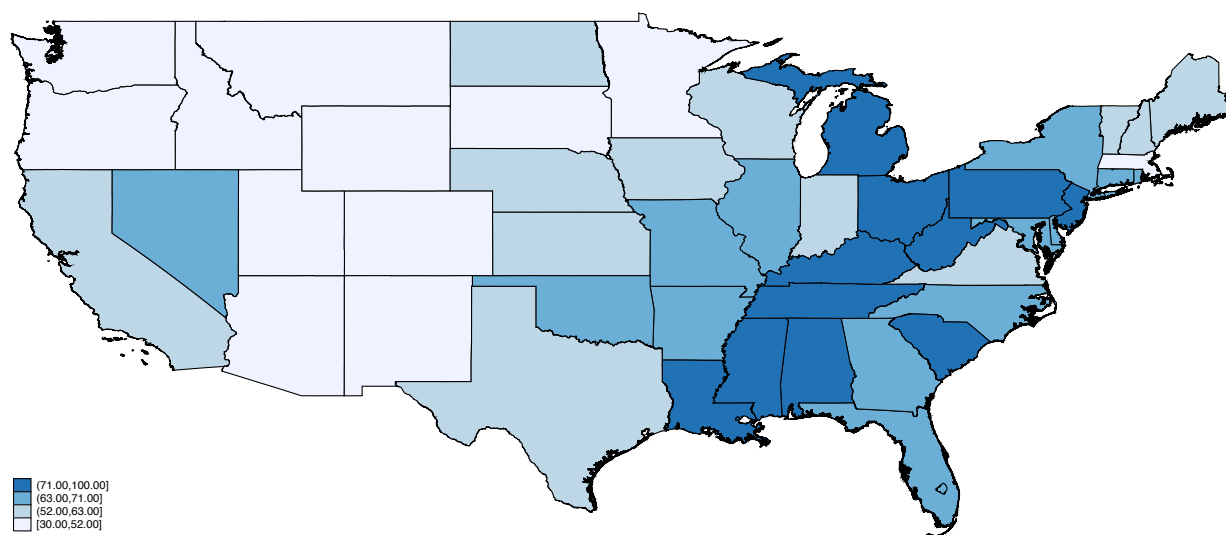
²⁴Appendix C describes the racially charged search index more and Stephens-Davidowitz (2012) discusses it in great detail.

Figure 8: Idleness Convergence Within Generations of Black Immigrant Men, State



Note: The figure plots $-\beta_1$ from the regression $Idle = X'\beta + \beta_1 * Age\ of\ Immigration + \epsilon$ for each state, where X are the controls. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to black natives from the same state. All regressions control for education, potential experience, time spent in the US, and the annual unemployment rate. White areas reflect states with fewer than 100 black immigrants in the sample. Darker areas signify quicker convergence. Alaska and Hawaii are not shown.

Figure 9: Racially Charged Search Rate, State (Stephens-Davidowitz)



Note: The map is constructed using Stephens-Davidowitz's racially charged search index on the state level. It captures the search volume for "nigger(s)," from 2004-2007, at the state level. Darker areas signify higher search volume. Alaska and Hawaii are not shown.

At the county level, the raw correlation between the absolute value of the idleness - age of immigration gradient and the racially charged search rate is 0.24. The following econometric model uses individual level data and adds controls to explore the robustness of the correlation between idleness convergence and racial animus:

$$Idle = X'\beta + \beta_1 Age\ of\ Imm. + \beta_2 RCS + \beta_3 RCS * Age\ of\ Imm. + \epsilon \quad (8)$$

where *RCS* stands for Racially Charged Search. Racially charged search is normalized to its z-score. Hence the coefficient β_2 measures the effect of a one standard deviation increase in racially charged searches on idleness of black natives. β_3 captures the differential effect for each year in the age of immigration of black immigrants. Table 12 reports the OLS estimates of equation (8). The first column runs the baseline model, column (2) - (4) add additional controls, and column (5) and (6) split the sample into those without and with a college degree.

In all cases, the effect of racially charged searches on idleness of black native men, shown in the first row of Table 12, is large and statistically significant. A one standard deviation increase in racially charged searches increases the likelihood of idleness by 4.2 percentage points in the baseline model. Controlling for the county fraction of college degrees, the county fraction of blacks, individual schooling levels, and the black-white median income gap in the county dampens the effect, but does not erase the significant effect.

The cross effect between racially charged searches and age of immigration is statistically significant and shows that racially charged searches hurt outcomes of black natives more than black immigrants and blacks who immigrate younger more than those who immigrate older. The effect of increasing racially charged searches by one standard deviation and being one year younger when arriving in the US increases the likelihood of idleness by about .1 percentage points. Imagine a black immigrant who comes to the US as an infant: A one standard deviation increase in racially charged searches in his county increases his likelihood of being idle by 3 percentage points more than if he had immigrated at age 30.

Table 12: Racially Charged Search (RCS) and Convergence in Idleness Probabilities for Blacks Within Generations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Panel A: Men</u>							
Age of Imm.	-0.00421*** (0.000102)	-0.00408*** (0.000102)	-0.00387*** (0.000104)	-0.00369*** (0.000104)	-0.00506*** (0.000128)	0.0000587 (0.000165)	0.0371*** (0.00523)
RCS	0.0425*** (0.00162)	0.0299*** (0.00166)	0.0199*** (0.00161)	0.0142*** (0.00163)	0.0199*** (0.00179)	0.0109*** (0.00320)	0.0104*** (0.00176)
RC*Age Imm.	-0.000989*** (0.000182)	-0.00132*** (0.000183)	-0.00145*** (0.000189)	-0.00130*** (0.000189)	-0.000949*** (0.000239)	-0.000995*** (0.000282)	-0.000505** (0.000213)
Observations	643808	643808	643808	547054	96754	643808	
Adjusted R^2	0.055	0.113	0.115	0.093	0.066	0.118	
<u>Panel B: Women</u>							
Age of Imm.	-0.000862*** (0.000106)	-0.000808*** (0.000106)	-0.00157*** (0.000108)	-0.00142*** (0.000108)	-0.00214*** (0.000125)	0.00136*** (0.000207)	-0.0269*** (0.00666)
RCS	0.0253*** (0.00147)	0.0168*** (0.00151)	0.00934*** (0.00146)	0.00531*** (0.00147)	0.00860*** (0.00167)	0.00782*** (0.00261)	0.00440*** (0.00152)
RCS*Age Imm.	-0.000530** (0.000209)	-0.000782*** (0.000210)	-0.000721*** (0.000213)	-0.000630*** (0.000214)	-0.000393 (0.000249)	-0.000785** (0.000387)	0.000192 (0.000224)
Observations	779595	779595	779595	632896	146699	779595	
Adjusted R^2	0.060	0.112	0.113	0.096	0.063	0.114	
%Black/College		X	X	X	X	X	X
Schooling			X	X	X	X	X
Bl.-Wh. Gap				X			
No College					X		
College						X	
Assimilation							X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ Regressions control for a quadratic in potential experience, years in the US, the annual unemployment rate. The sample consist of 18-65 year olds in the CPS from 2000-2011. RCS is at the media market level while the black-white gap, the % black and % with a college degree are at the county level. RCS is normalized to the z-score. Black-white median income gap is in \$1000s.

The econometric model in (8) restricts the effect of racially charged searches on idleness to be linear in age of immigration. To relax this assumption, the following analysis returns to the original within generation specification

$$Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \beta_2 RCS + \sum_{m=1}^M \beta_{3m}m * RCS + \varepsilon \quad (9)$$

The coefficients of interest are β_{3m} for all ages of immigration m . Plotting the coefficients for various ages of immigration helps us understand how racial attitudes affect outcomes for immigrants relative to natives depending on the immigrant's age of immigration.²⁵ Figure 10 shows there is a steep downward-sloping trend in the age of immigration-racially charged search interaction by age of immigration. Continuing with the previous example, a one standard deviation increase in racially charged searches in the county now increases the idleness likelihood of the young immigrant (0 year-old) by 5 percentage points more than the young adult immigrant (30 year-old).

Figure 11 shows that immigrants without a college degree are driving this relationship. We already learned that the earlier black foreign-born men immigrate, the more sensitive their idleness is to the housing segregation and education levels of their county residents. Add racial animus to the list.

Under the assumption that racial attitudes are positively correlated with discrimination, the previous analyses provide evidence that racial discrimination in the labor market is negatively correlated with the employment outcomes of black natives as well as black immigrants. In spite of the difficulty of interpreting the estimates as causal effects due to the self-selection of black immigrants into counties, we glean that areas with more discrimination experience quicker convergence.

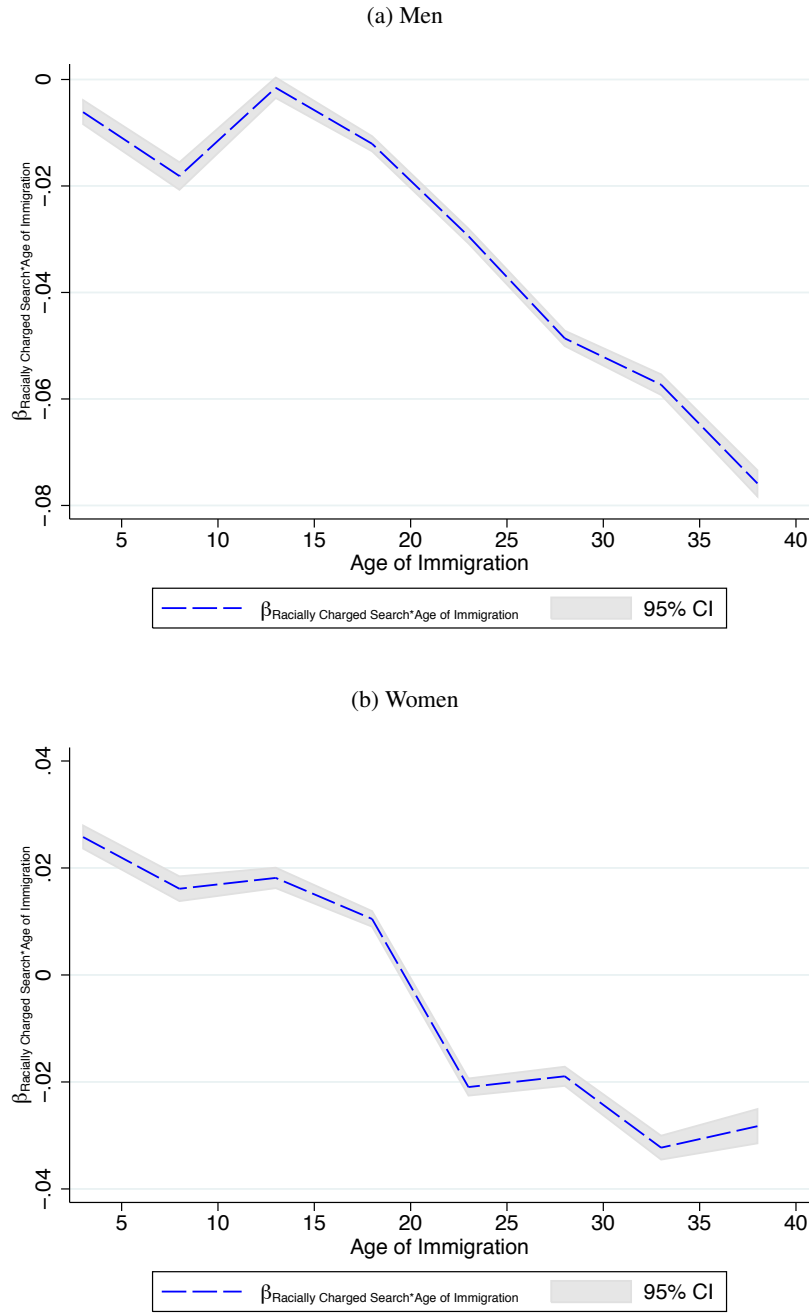
5.2 Assimilation and Convergence

5.2.1 Theoretical Model

To shed some light on the role of assimilation in the convergence process, this section builds a social interactions model to better understand peer effects in the idleness decision-making process. The model builds on the decision-making problem introduced in Blume *et al.* (2011) among others. For simplicity,

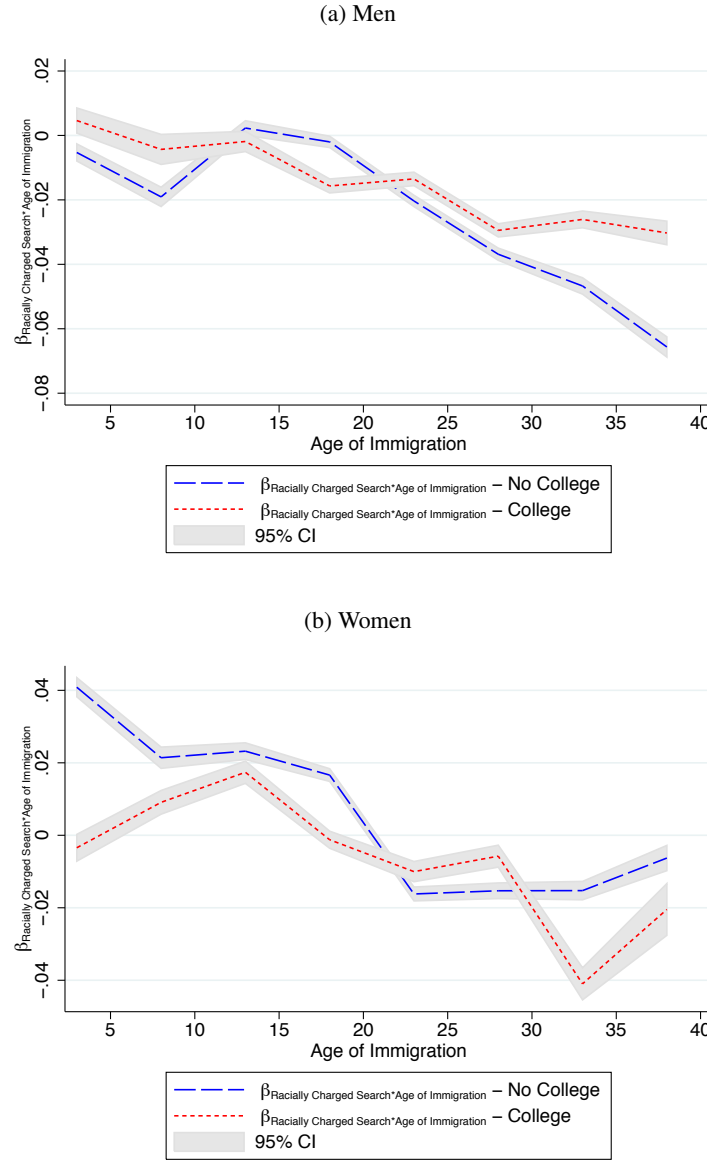
²⁵The evolution of β_{1m} s, the coefficients in front of various ages of immigration m , remain essentially unchanged compared to the baseline model in (5).

Figure 10: Racially Charged Searches & Idleness Probabilities for Blacks by Age of Immigration



Note: The figures plot β_{3m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \beta_2RCS + \sum_{m=1}^M \beta_{3m}m * RCS + \varepsilon$, where m denotes age of immigration indicators. RCS is the z-score of the racially charged search index. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to black natives. All regressions control for individual education, potential experience, time spent in the US, and the annual unemployment rate. The county controls are the percentage of blacks, and the percentage of college graduates. Age of immigration is in five year bins.

Figure 11: Racially Charged Searches & Idleness Probabilities for Blacks by Age of Immigration and Education Level



Note: The figures plot β_{3m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \beta_2RCS + \sum_{m=1}^M \beta_{3m}m * RCS + \varepsilon$, where m denotes age of immigration indicators. RCS is the z-score of the racially charged search index. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to black natives. All regressions control for individual education, potential experience, time spent in the US, and the annual unemployment rate. The county controls are the percentage of blacks, and the percentage of college graduates. Age of immigration is in five year bins.

the model presented here is a linear probability model.

The model studies the joint behavior of individuals who are members of a common group g . The population size of each group g is n_g . The goal is to probabilistically describe the individual i 's choice: $\omega_{i,g}$. The set of possible behaviors from which choices are made is $\Omega_{i,g}$. Using standard notation, $\omega_{-i,g}$ denotes the choices of others in the same group. Let x_i be a vector of observable individual specific characteristics. y_g is a vector of observable group-specific characteristics. $\mu_i^e(\omega_{-i,g})$ is an unobservable probability measure that describes the beliefs individual i has about behaviors of other in the group. Let ε_i be a vector of unobservable random individual-specific characteristics associated with i and Ψ_g be a vector of unobservable random group-specific characteristics. Individual choices are characterized as maximizations to a payoff function V ,

$$\omega_{i,g} = \operatorname{argmax}_{\lambda \in \Omega_{i,g}} V(\lambda, x_i, y_g, \mu_i^e(\omega_{-i,g}), \varepsilon_i, \Psi_g) \quad (10)$$

Much of the empirical literature has focused on a linear in means model of the following form²⁶

$$\omega_{i,g} = k + cx_i + dy_g + Jm_{i,g}^e + \varepsilon_i \quad (11)$$

where $m_{i,g}^e$ denotes the expected average of other people's decisions in the group,

$$m_{i,g}^e = \frac{1}{n} \sum_{j \in g} E(\omega_j | F_i). \quad (12)$$

As in Manski's original formulation, $y_g = \bar{x}_g$, where $\bar{x}_g = \frac{1}{n_g} \sum_{i \in g} x_i$ denotes the average across i of x_i within a given g . Coefficient vector c and scalar J capture contextual and endogenous effects.²⁷ Under the assumption $y_g = \bar{x}_g$, every contextual effect is the average of a corresponding individual characteristic

$$m_g = \frac{k + (c + d)y_g}{1 - J} \quad (13)$$

²⁶This linear in means model can be derived as a Bayes-Nash equilibrium of a game in which each individual's choice is determined by a private benefit and a conformity benefit. The utility functions are quadratic and the conformity benefit is linearly decreasing in the quadratic deviation of an individual's choice from the average behavior of the group (see Blume *et al.* (2011) for a derivation).

²⁷Assumptions on the error terms are discussed in Appendix D.

We see that m_g is linearly dependent on the other regressors, i.e. the constant and y_g . This linear dependence implies that the identification of the full set of structural parameters fails. For this study, the parameter of interest is α (to be introduced), and not c or J . Hence, this paper will not further deal with conditions that could be put in place to restore identification of all parameters.²⁸

What group g do first generation blacks belong to? In other words, which individuals affect their decision to work or attend school? Figures 3a and 3b showed that an immigrant's idleness varies considerably by age of immigration. This suggests that immigrants assimilate with natives to varying degrees. Consequently, I represent an immigrant's choice by a mixture of two choices, the choice of individual i in group 1 and that of individual i in group 2. Group 1 represents all native blacks and group 2 represents a different group.

$$\omega_{i,g1,2} = \alpha_j \omega_{i,g1} + (1 - \alpha_j) \omega_{i,g2} \quad (14)$$

where α_j varies by age of immigration j and measures the degree of assimilation. Let's assume that g_1 evolves as the baseline model in (11) while members of group 2 are only affected by their own characteristics. In other words,

$$\omega_{i,g2} = k + cx_i + \varepsilon_i \quad (15)$$

After some algebra, we get²⁹

$$\omega_{i,g1,2} = \pi_0 + \pi_1 x_i + \alpha_j \pi_2 \bar{x}_{g1} + v_{i,g1,2}. \quad (16)$$

Given previous results, we would expect α to be strongly negatively correlated with age of immigration.

Ignoring the theoretical model preceding equation 16, this regression could simply be viewed as capturing how much characteristics of black natives in the county affect a black immigrant's probability of being idle. Different α_j s for each age of immigration help determine whether this effect changes by

²⁸See Blume *et al.* (2011) for a detailed discussion and ways to restore identification.

²⁹Section C provides an explicit derivation of the model.

age of immigration.

5.2.2 Econometric Model

From the perspective of econometric evaluation, we see that α_j cannot easily be disentangled from π_2 in equation (16). Hence it makes sense to begin by recovering π_2 from running the baseline regression on natives

$$\omega_{i,g1} = \pi_0 + \pi_1 x_i + \pi_2 \bar{x}_{g1} + v_{i,g1} \quad (17)$$

We then estimate the following regression separately by each age of immigration

$$\omega_{i,g1,2} = \beta_0 + \beta_1 x_i + \beta_2 \bar{x}_{g1} + v_{i,g1,2} \quad (18)$$

For each age group we are left with the following condition that can be used for identification:

$$\alpha_j \pi_2 - \beta_{2j} = 0 \quad (19)$$

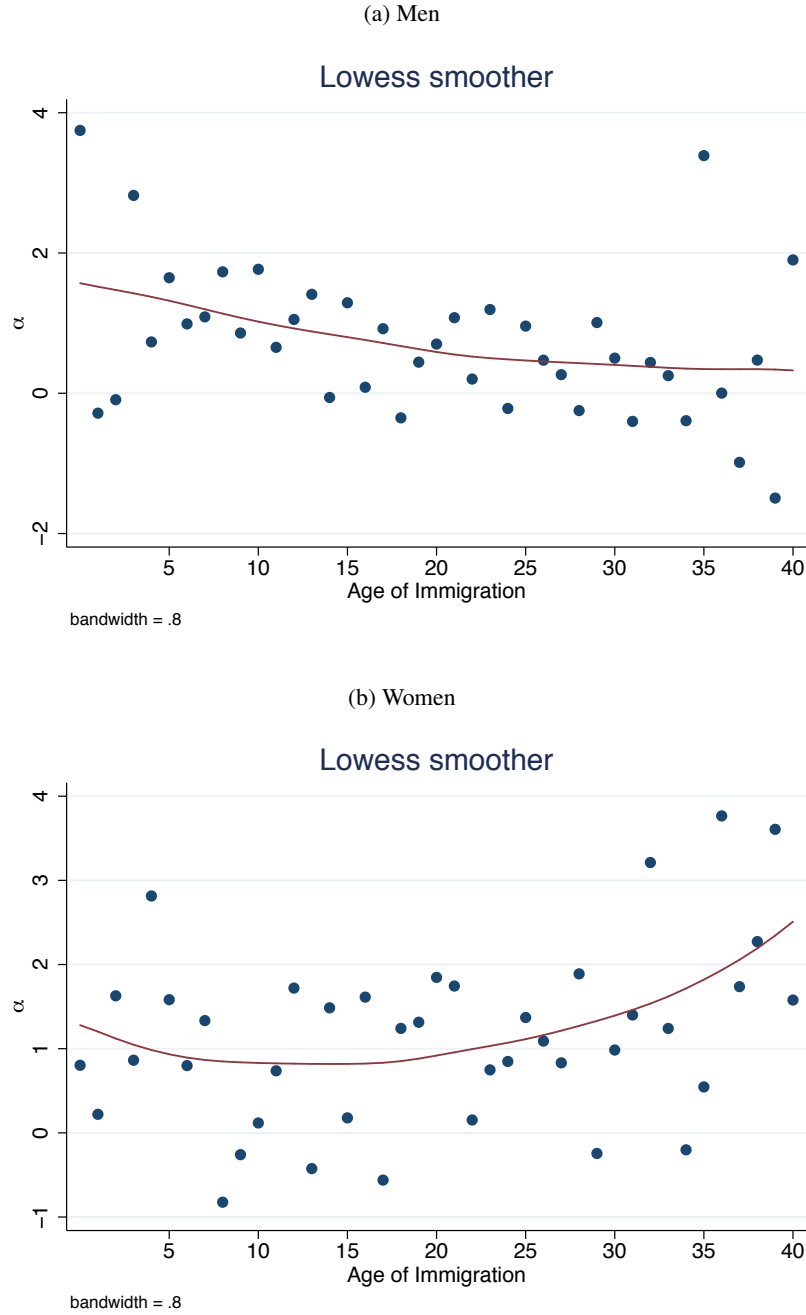
where α_j is a scalar that varies by age of immigration j . Members of group 1 are blacks in the same county. Variables in x_i include education (high school, some college, college, more than college), and a quadratic in potential experience. \bar{x}_{g1} includes the group averages of these variables.

5.2.3 Estimation

The assimilation parameter α will be estimated separately by age of immigration. To get a sense of how many observations we are working with in the various age of immigration groups, Table B.11 tabulates the number of observations in each bin. I focus on immigrants who enter at age 40 or below since the number of black immigrants entering the US above the age of 40 quickly drops below 1000.

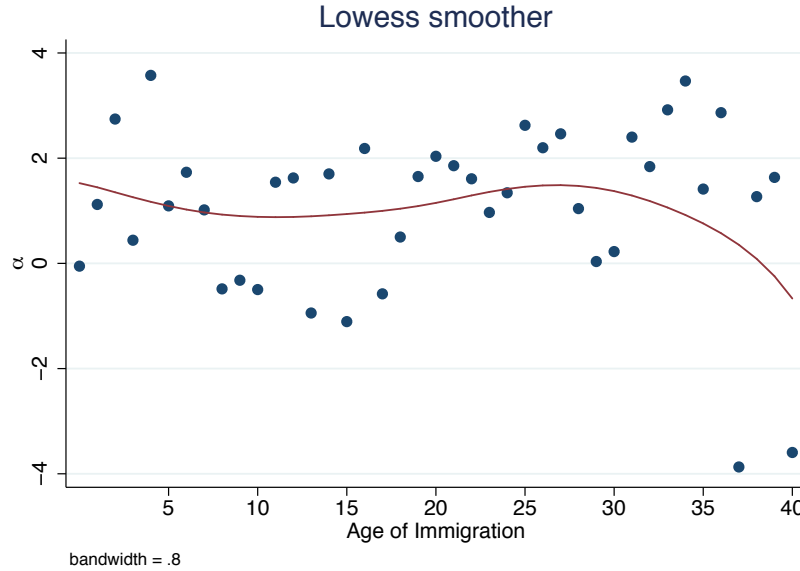
From (19) we see that α_j is overidentified as π_2 and β_{2j} are vectors and α_j is a scalar. α_j is recovered by running a weighted regression of β_{2j} on π_2 . The regression is run without a constant and the weights are the absolute value of the t-statistics of the parameters contained in β_{2j} . Figure 12 shows the

Figure 12: Assimilation Parameter α for Blacks by Age of Immigration



Note: α parameters are backed out by comparing idleness parameters for natives and immigrants by different ages of immigration. The locally weighted regression line is based on a 0.8 bandwidth. The underlying regressions control for education, potential experience, time spent in the US, metropolitan area and year fixed effects. The underlying sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS.

Figure 13: Assimilation Parameter α for Unmarried Black Women by Age of Immigration



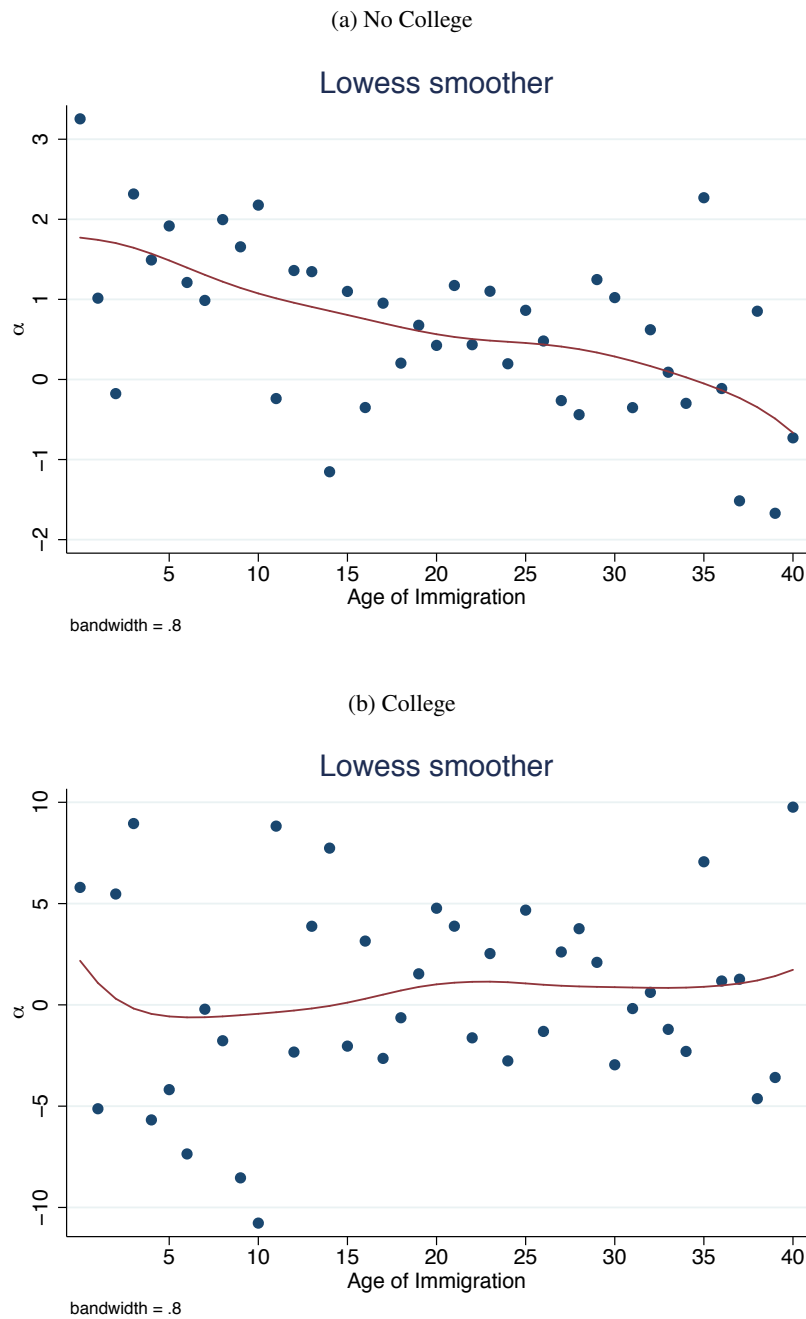
Note: α parameters are backed out by comparing idleness parameters for natives and immigrants by different ages of immigration. The locally weighted regression line is based on a 0.8 bandwidth. The underlying regressions control for education, potential experience, time spent in the US, metropolitan area and year fixed effects. The underlying sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS.

estimated alphas for each age of immigration. As there is some noise in alpha, the red line displays the locally weighted regression of alpha on age of immigration. Table 13 shows the linear approximation of the α - Age of immigration relationship. Immigrating one year older on average decreases the assimilation parameter by 3.2 percentage points.³⁰ For women the relationship between α and age of immigration is not monotonically decreasing and certainly not linear. Some of these women who immigrate when they are older might have accompanied their spouse who came to the US for work. Whether they stay at home or seek work might be heavily influenced by what their peers decide to do. Restricting the sample to unmarried women yields a pattern that is more similar to that of men (Figure 13).

Splitting the sample by education level yields that the assimilation parameter decreases sharply for black immigrant men without a college degree, but not for immigrants with a college degree (Figure 14).

³⁰This estimation is using α s backed out of previous regressions. The variables in those regressions were themselves coefficients in previous regressions. Hence the standard errors need to be adjusted in a non-trivial way. Bootstrapped errors using 500 iterations are displayed in Table 13.

Figure 14: Male Assimilation Parameter α for Blacks by Education Level



Note: α parameters are backed out by comparing idleness parameters for natives and immigrants by different ages of immigration. The locally weighted regression line is based on a 0.8 bandwidth. The underlying regressions control for education, potential experience, time spent in the US, metropolitan area and year fixed effects. The underlying sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS.

Table 13: α for Blacks by Age of Immigration

	(1)	(2)	(3)	(4)
<u>Panel A: Men</u>				
Age of Immigration	-0.0322*** (0.00478)	-0.0489*** (0.00440)	0.0491*** (0.00160)	-0.0178*** (0.00484)
Constant	1.364*** (0.0951)	1.640*** (0.0882)	-0.550*** (0.0332)	0.611*** (0.0965)
Observations	41	41	41	41
Adjusted R^2	0.112	0.283	-0.011	0.049
<u>Panel B: Women</u>				
Age of Immigration	0.0296*** (0.00440)	0.0415*** (0.0040)	-0.0325*** (0.00110)	0.0105*** (0.00443)
Constant	0.549*** (0.118)	0.134 (0.103)	2.201*** (0.0324)	1.127*** (0.118)
Observations	41	41	41	41
Adjusted R^2	0.091	0.213	-0.021	-0.010
No College		X		
College			X	
Racially Charged Search				X

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

α parameters are backed out by comparing idleness parameters for natives and immigrants by different ages of immigration. The underlying regressions control for education, potential experience, time spent in the US, metropolitan area and year fixed effects. The underlying sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Errors are bootstrapped with 500 iterations.

5.3 Combining Discrimination and Assimilation

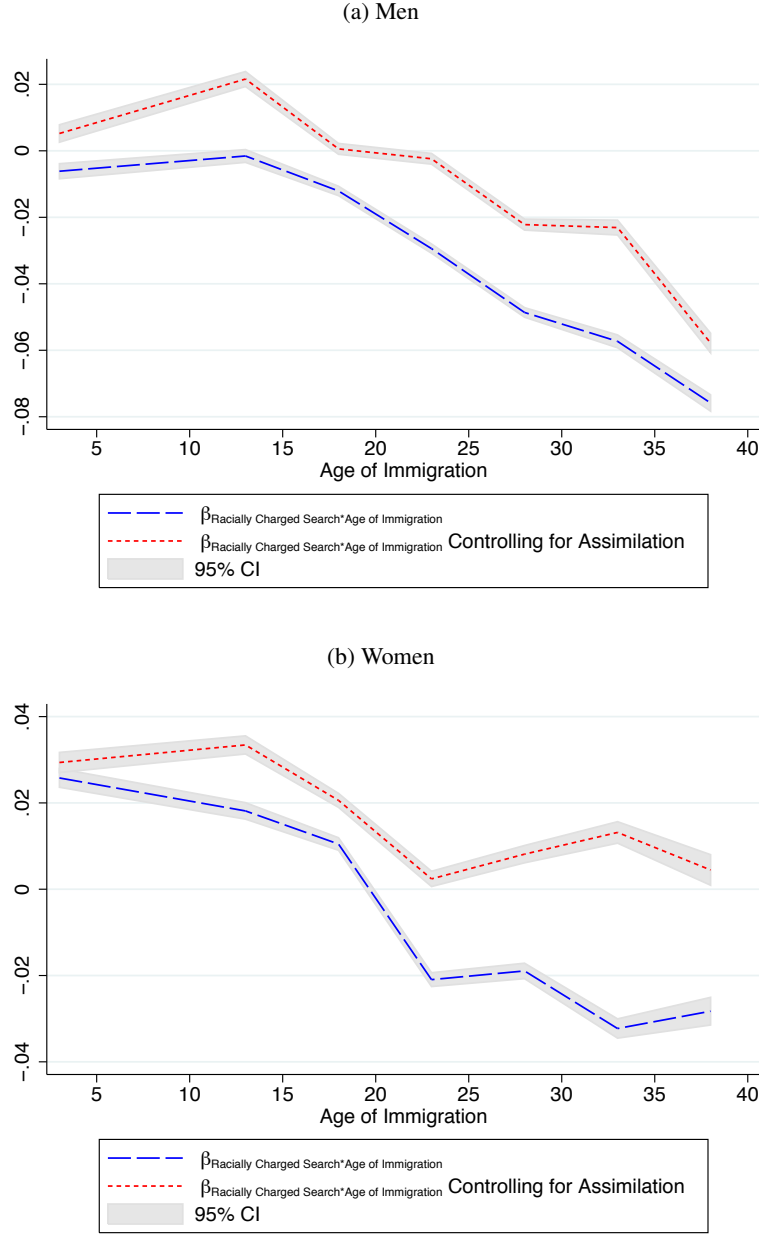
So far there is evidence of both assimilation and discrimination driving the convergence between black immigrants and black natives. Discrimination and assimilation may be highly correlated and yet only one of these two factors is driving the black immigrant - black native convergence. In order to test whether discrimination has any explanatory power beyond assimilation, equation (9) is adjusted to include black native characteristics and their interaction with age of immigration.

Column (7) in Table 12 shows that the linear approximation of the racially charged search effect by age of immigration is cut in half once we control for assimilation. It remains that the earlier black foreign-born men immigrate, the more sensitive their idleness is to racially charged searches in their county. Figure 15 shows that non-parametrically, controlling for assimilation reduces the level difference of the racially charged search index effect between black immigrants and black natives but does not change the gradient by very much.

Does assimilation, beyond its correlation with discrimination, play a role in the convergence between black immigrants and black natives? To answer this question, let's add the racially charged search index as one of the explanatory variables in the assimilation model presented in 5.2. Controlling for discrimination dampens the assimilation parameter α for each age of immigration (Figure 16), and flattens the negative α - age of immigration gradient. The linear approximation suggests that immigrating one year older decreases α by 3 percentage points in the baseline model. Controlling for discrimination cuts this effect in half (Table 13).

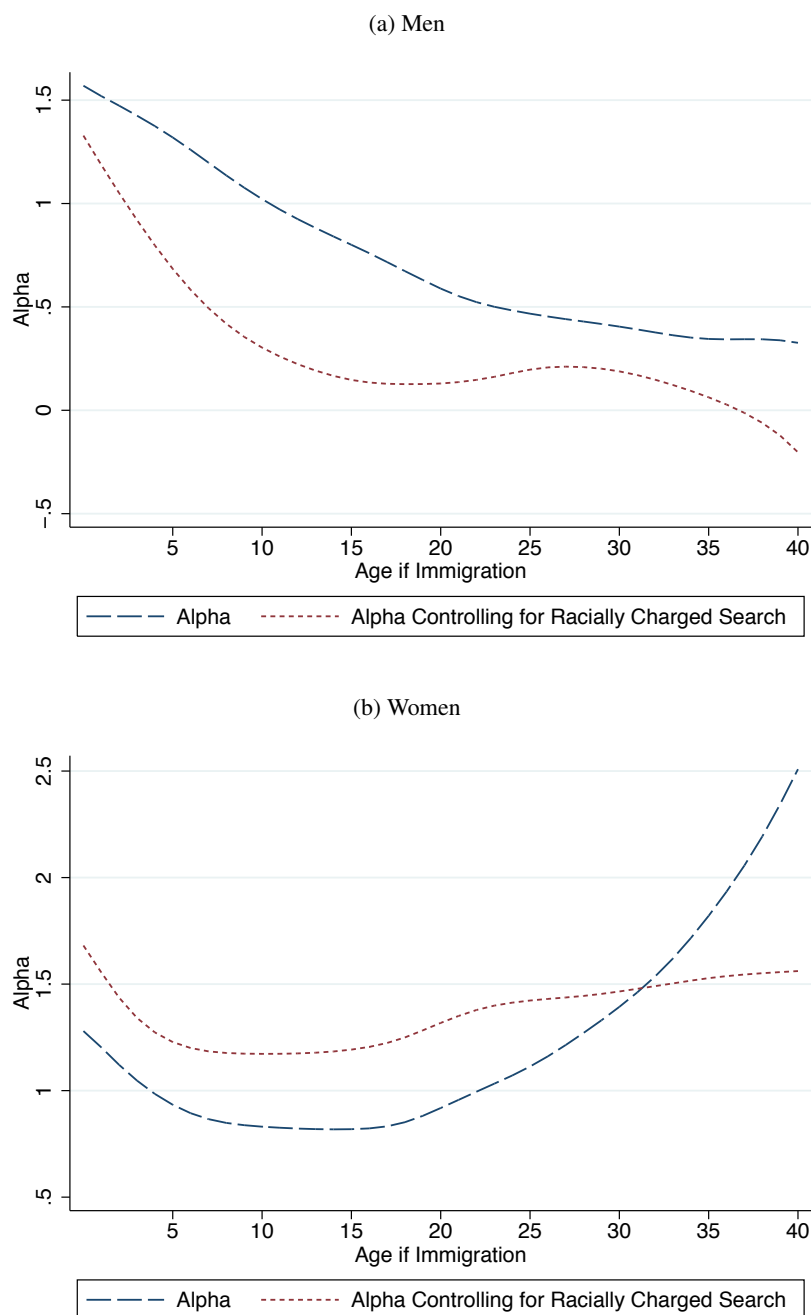
We conclude that both discrimination and assimilation independently play an important role for the convergence between black immigrants and black natives. Controlling for one mechanism, however, cuts the effect of the other in half, suggesting that in many counties assimilation and discrimination co-exist.

Figure 15: Racially Charged Search & Idleness Probabilities for Blacks by Age of Immigration Controlling for Assimilation



Note: The blue graphs plot β_{3m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \beta_2RCS + \sum_{m=1}^M \beta_{3m}m * RCS + \epsilon$, where m denotes age of immigration indicators. RCS is the z-score of the racially charged search index. The red graphs plot β_{3m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \beta_2RCS + \sum_{m=1}^M \beta_{3m}m * RCS + \beta_4\bar{x}_{g1} + \beta_{5m}m * \bar{x}_{g1} + \epsilon$, where \bar{x}_{g1} capture the average individual characteristics of black natives in the county (education and potential experience). The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to black natives. Controls are individual education, potential experience, time spent in the US, and the annual unemployment rate. The county controls are the percentage of blacks, the percentage of college graduates. Age of immigration is in five year bins.

Figure 16: Assimilation Parameter α for Blacks Controlling for Racially Charged Searches by Age of Immigration



Note: α parameters are backed out by comparing idleness parameters for natives and immigrants by different ages of immigration. The locally weighted regression line is based on a 0.8 bandwidth. The underlying regressions control for education, potential experience, time spent in the US, the racially charged search index, and metropolitan area and year fixed effects. The underlying sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS.

6 Conclusion

Let me conclude with a few stylized examples, which will highlight the main points of this paper. Consider a simple 2×2 contingency table as displayed at the top of Table 14. In this first example, a black immigrant male either immigrates when he is 5 or 35 years old; he either has or does not have a college degree.

Table 14: Idleness Probabilities for the Average Black Immigrant Male

	Imm. at Age 5	Imm. at Age 35
No College (Individual)	28%	12%
College (Individual)	16%	9%
Low # College Graduates (County)	30%	12%
High # College Graduates (County)	21%	10%
Low Black Native Idleness (County)	20%	11%
High Black Native Idleness (County)	30%	13%

Note: Predicted values for these three scenarios are obtained by running $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \varepsilon$ for those with and without a college degrees, for those in counties with few number of college graduates (below the 25th percentile) and those in an area with high number of college graduates (above the 75th percentile), for those in counties with low black native idleness (below the 25th percentile) and those in an area with high black native idleness (above the 75th percentile). m are age of arrival indicators. Except for age of immigration, all variables are set to the average values for black immigrant males. Controls are education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in five year bins.

A less-educated black who immigrates at age 35 has a 12% chance of being idle. This same immigrant has a striking 28% chance of being idle when immigrating at age 5. A college-education decreases these numbers as well as the difference between them.

Living in a low-educated county versus being low-educated yourself exacerbates the idleness problem of blacks who immigrate young (rows 3 and 4). Immigrating at age 5 instead of age 35 bumps up the idleness likelihood by 18 percentage points for blacks who live in relatively low instead of high-educated counties (25th percentile versus 75th percentile in the distribution of number of college graduates).

Rows 5 and 6 exchange the percentile in the college graduate distribution for the percentile in the native black county idleness distribution. The idleness of black natives in the county also has a disproportionately large effect on blacks who immigrated when they were young. In fact, the idleness prob-

ability increases by almost 10 percentage points when we increase the number of black natives out of work from the 25th to the 75th percentile. For the immigrant who arrived at age 35, this jump is 2 percentage points. Table B.13 and B.14 in the Appendix show that the effects of increased housing segregation and racially charged search levels are also disproportionately large for immigrants who arrive in the US when they are young.

This paper adds to the existing literature on three dimensions. First, it lays out the fact that black immigrants have become a large and relatively successful part of the black population in the last few decades. Second, it demonstrates that black immigrants' idleness converges to that of black natives across and within generations. The convergence is heterogeneous, varying with individual as well as county-wide characteristics. A college education is a dividing mark: For immigrants without a college degree the convergence is strong, for college-educated immigrants it is weak. Counties with high levels of segregation experience quicker convergence, highly educated counties experience slower convergence. Third, it determines that both assimilation and discrimination are powerful mechanisms underlying the convergence between black immigrants and black natives. Controlling for one mechanism cuts the effect of the other in half as assimilation and discrimination coexist in many counties

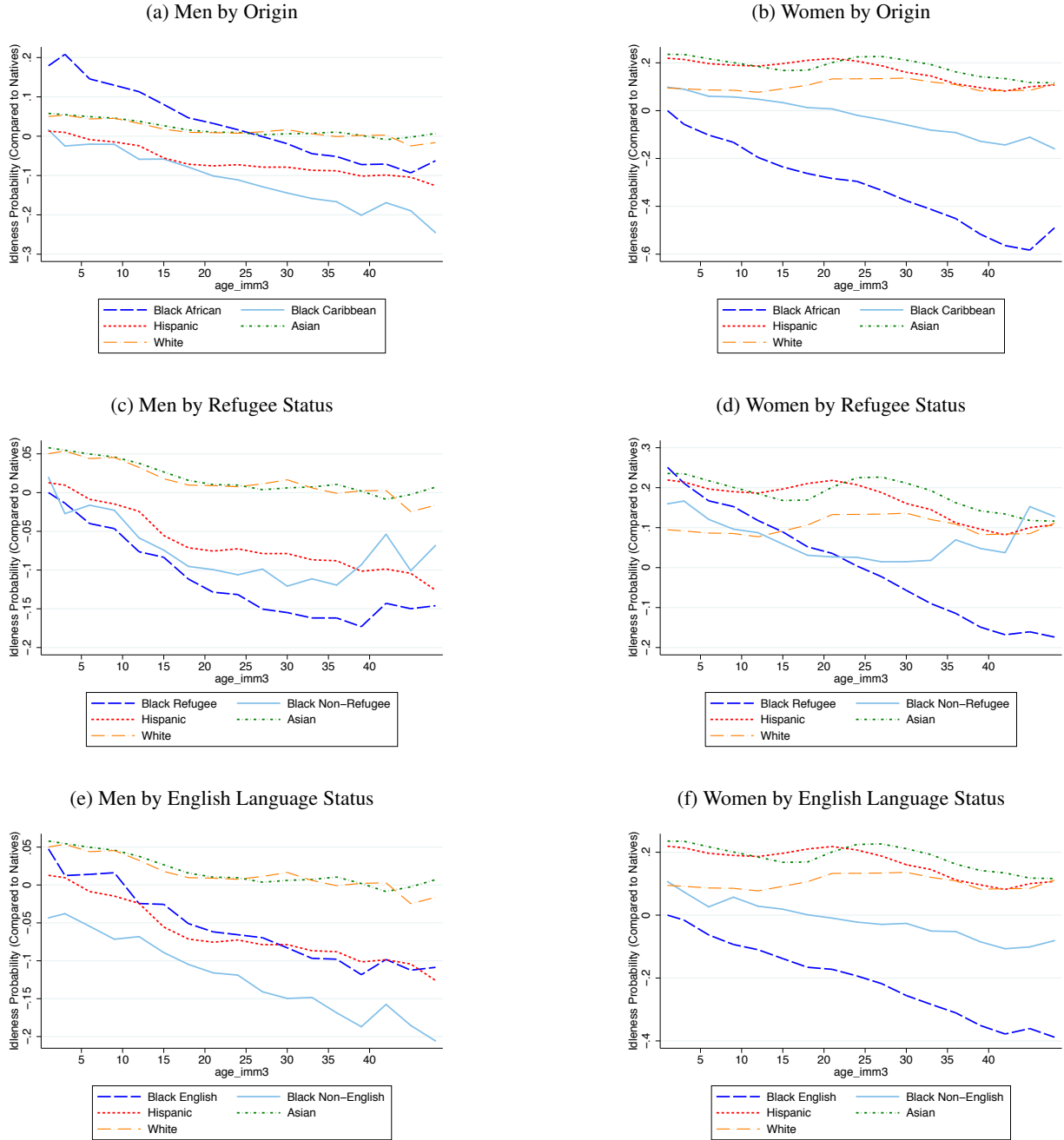
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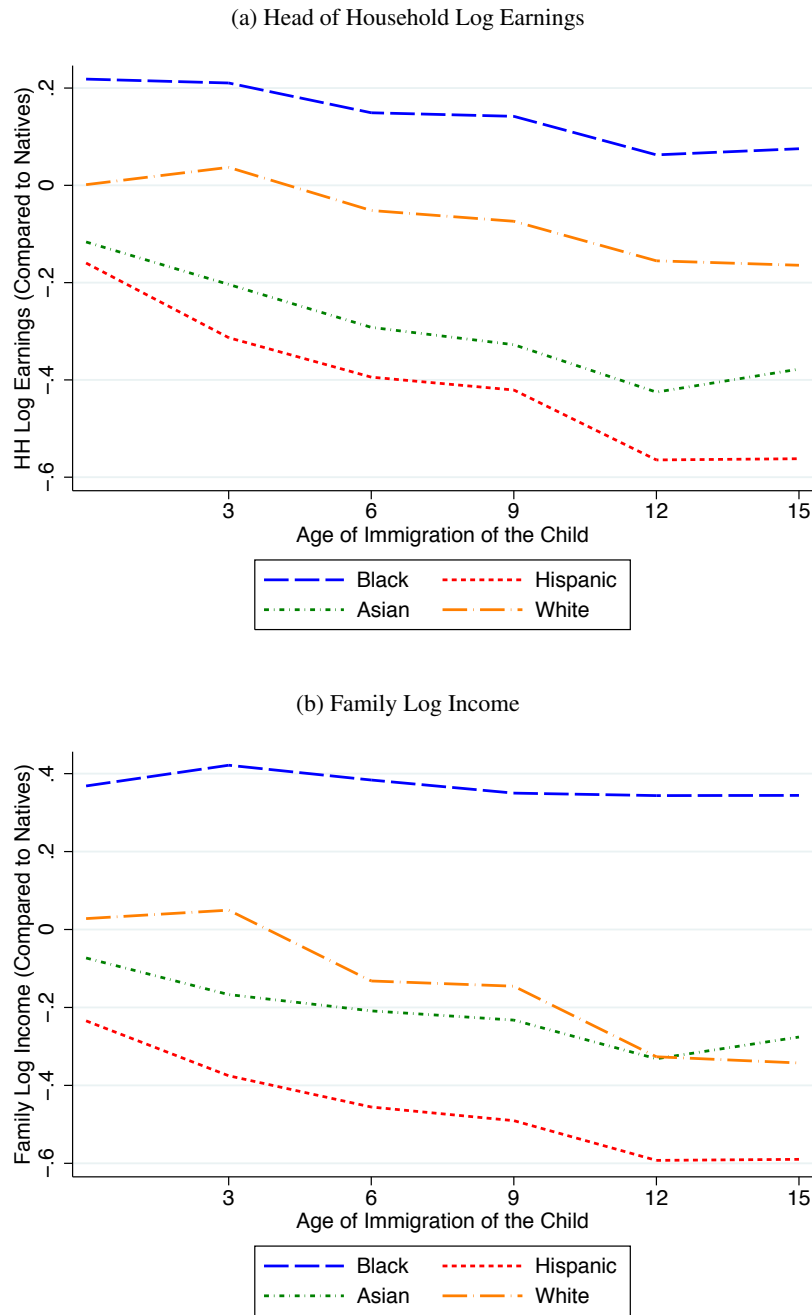
Appendix A: Supplemental Figures

Figure A.1: Convergence in Idleness Probabilities within Generations by Age of Immigration, Origin, Refugee, and English Language Status



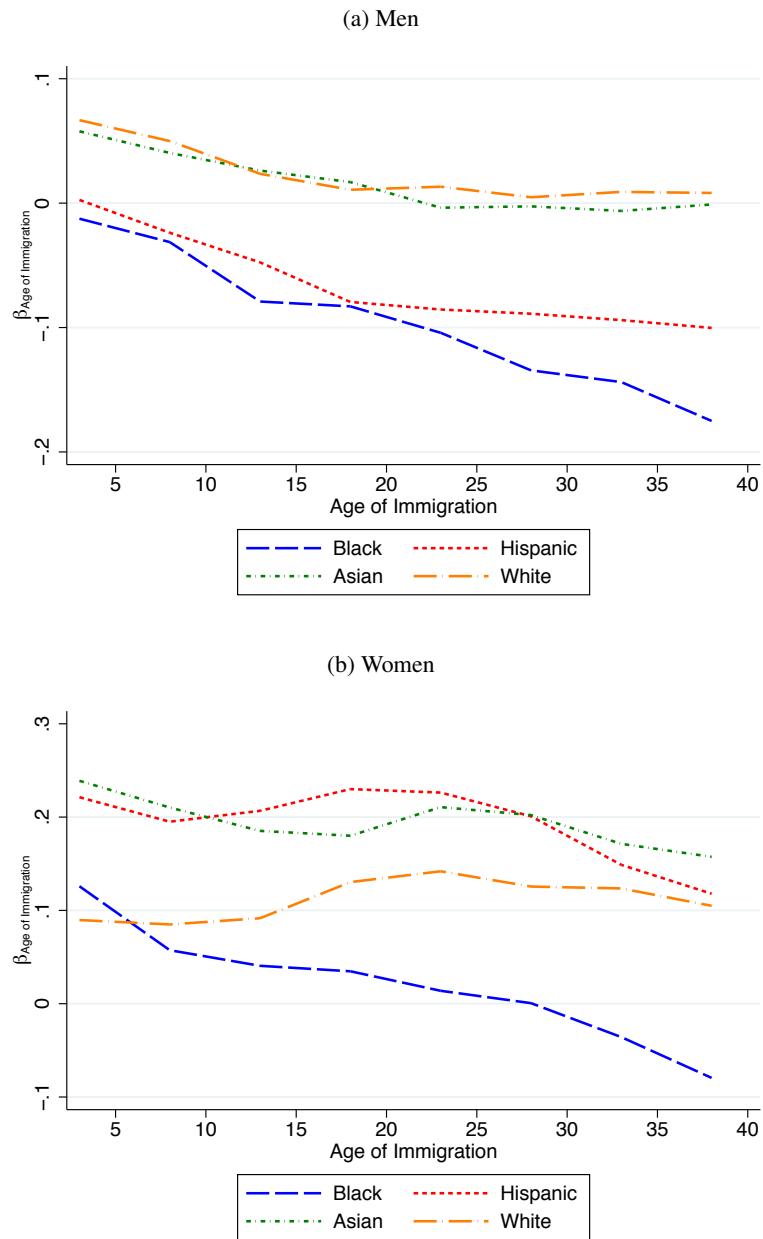
Note: The figures plot β_{1m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \epsilon$, where m denotes age of immigration indicators. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness probabilities are compared to natives of the same race. Controls are education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Blacks are split into those from African and Caribbean countries in panel a) and b), those with and without refugee status in panel c) and d), and those that come from countries that list and don't list English as an official language not in panel e) and f). Age of immigration is in three year bins.

Figure A.2: Parental Outcomes by Age of Immigration of the Child without Controlling for Years in the US



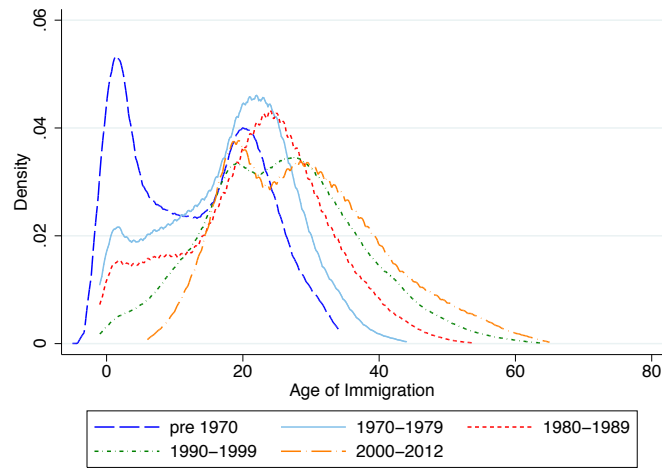
Note: The figures plot β_{1m} from the regression $Outcome = \sum \beta_{1m}m + \epsilon$, where m denotes age of immigration indicators. The sample consists of 0-15 year olds in the 1990 census. Outcomes are compared to natives of the same race, with no controls.

Figure A.3: Housing Segregation, Percentage of College Graduates & the Convergence in Idleness Probabilities



Note: The figures plot β_{1m} from the regression $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \sum_{j=1}^J \beta_{2j}Meas_j + \sum_{j=1}^J \sum_{m=1}^M \beta_{3jm}m * Meas_j + \varepsilon$, where m denotes age of immigration indicators. $Meas_j$ is the z-score of the housing segregation index and the z-score of the percentage of college graduates. The sample consists of 18-65 year olds in the 2000 census and the 2001-2012 ACS. Idleness is compared to natives of the same race. All regressions control for individual education, potential experience, time spent in the US, and the annual unemployment rate. The county controls are the percentage of blacks, the percentage of black immigrants, and the segregation of the poor. Age of immigration is in five year bins.

Figure A.4: Age of Immigration of Black Immigrant Men by Arrival Cohort



Note: The sample is drawn from the decennial censuses from 1970 to 2000 and the 2001-2012 ACS.

Appendix B: Supplemental Tables

Table B.1: Residential Clustering Across Generations by Origin

	Africans & Caribbeans		Africans		Caribbeans	
	1st Gen.	2nd Gen.	1st Gen.	2nd Gen.	1st Gen.	2nd Gen.
<u>Average Percentage of the County that is</u>						
Immigrant from the same Country	1.02	1.00	0.10	0.19	1.46	1.12
Immigrant	24.80	26.19	18.27	18.53	27.97	27.28
Immigrant Black	5.09	5.29	2.73	2.69	6.23	5.66
Black	22.89	23.00	21.66	25.81	23.49	22.60
White	48.73	47.52	53.04	48.29	46.64	47.42
Hispanic	19.35	19.59	16.13	16.63	20.91	20.01
Asian	5.87	6.61	6.10	6.18	5.77	6.68
Employed	57.15	56.76	61.57	61.13	55.15	56.16
Married	46.35	46.81	47.58	47.15	45.80	46.76
Single Mother Households	8.91	8.90	8.54	8.80	9.09	8.91
HS Dropout	22.10	22.79	18.72	19.33	23.74	23.28
HS	25.76	26.09	24.25	24.70	26.50	26.29
Some College	24.91	24.63	26.37	27.04	24.21	24.29
College+	27.23	26.49	30.67	28.93	25.56	26.15
Below Poverty Line	5.17	5.21	4.14	4.55	5.67	5.30
Urban	97.30	97.28	96.05	96.88	97.91	97.34
<u>Other County Variables</u>						
Median Income	44292	44093	48920	48110	42049	43521
Sample Size	10225	1578	3668	242	6557	1336

The sample of individuals consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3. Second generation members are assigned the country of the mother. If the mother is American, the individual is assigned the country of the father. The sample is limited to individuals from countries that the Census 2000 Summary File 3 has aggregated statistics for.

Table B.2: Residential Clustering Across Generations by Education Status

	No College			College		
	1st Generation	2nd Generation	Natives	1st Generation	2nd Generation	Natives
<u>Average Percentage of County that is</u>						
Immigrant	25.68	24.98	13.65	23.22	24.13	14.71
Immigrant Black	5.40	4.80	1.68	4.34	4.14	1.68
Black	23.37	22.44	23.92	23.06	21.47	23.78
White	47.14	47.78	56.17	49.65	49.49	55.11
Hispanic	20.09	20.06	12.91	17.83	18.86	13.33
Asian	6.13	6.47	4.26	6.35	6.95	5.04
Employed	56.51	56.64	59.96	58.94	58.40	61.25
Married	46.03	46.44	47.50	47.43	47.91	48.26
Single Mother Households	9.19	9.02	8.59	8.59	8.33	8.27
HS Dropout	22.97	23.09	19.84	20.95	21.29	18.77
HS	25.95	25.88	26.61	25.16	25.39	25.25
Some College	24.78	24.91	27.12	25.24	25.03	27.37
College+	26.30	26.12	26.43	28.65	28.29	28.60
Below Poverty Line	5.43	5.30	5.42	4.85	4.58	4.90
Urban	97.58	97.15	93.47	96.90	97.05	94.39
<u>Other County Variables</u>						
Median Income	43,100	43,200	43,800	46,600	46,900	46,500
Sample Size	11,000	1,900	80,500	4,000	1,000	18,700

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3.

Table B.3: Segregation Across Generations

	All			Blacks		
	1st Generation	2nd Generation	Natives	1st Generation	2nd Generation	Natives
Housing Seg.	0.53	0.53	0.52	0.59	0.60	0.56
Seg. of the Rich	0.31	0.31	0.29	0.30	0.30	0.31
Seg. of the Poor	0.27	0.27	0.26	0.27	0.26	0.28
Seg. of the Black Rich	0.36	0.37	0.37	0.31	0.31	0.31
Seg. of the Poor	0.35	0.36	0.35	0.31	0.31	0.31
Sample Size	174,800	58,700	445,900	12,300	2,400	74,000

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3.

	Low				High			
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Housing Segregation</u>								
Housing Seg.	0.40	0.39	0.40	0.40	0.67	0.67	0.65	0.63
Idle (%)	28.97	25.20	28.90	31.29	28.09	26.13	34.15	31.27
Age	40.16	34.12	40.92	41.81	41.78	32.98	41.16	41.89
Sample Size	2,000	406	15,300	158,100	4,600	895	27,100	183,200
DID (2nd-1st): 1.81 (3.28)								
DID (Nat-1st): 6.13*** (1.48)								
<u>Segregation of the Poor</u>								
Seg. of the Poor	0.23	0.22	0.23	0.22	0.30	0.30	0.31	0.30
Idle (%)	27.00	25.12	33.01	31.56	29.56	26.49	31.95	31.14
Age	42.33	32.45	40.94	42.33	40.40	34.07	41.16	41.51
Sample Size	2,900	536	13,000	138,900	3,700	767	29,400	213,800
DID (2nd-1st): -1.24 (2.98)								
DID (Nat-1st): -3.62*** (1.34)								
<u>Percent With College Degree</u>								
College + (%)	21.73	21.77	20.99	21.16	35.05	35.42	34.41	35.27
Idle (%)	28.84	28.23	35.39	33.61	27.51	21.84	27.98	27.95
Age	42.18	33.23	41.02	41.88	39.89	33.44	41.17	41.83
Sample Size	3,700	715	21,000	196,900	2,900	588	21,400	15,600
DID (2nd-1st): -5.02* (3.00)								
DID (Nat-1st): -6.00*** (1.36)								

This table is split across pages.

Table B.4, continued

	Low				High			
	Bl. 1st	Bl. 2nd	Bl. Native	All	Bl. 1st	Bl. 2nd	Bl. Native	All
<u>Percent Black</u>								
Blacks (%)	7.16	7.84	7.83	5.63	27.83	27.50	30.68	24.38
Idle (%)	29.58	25.09	33.82	31.70	27.98	26.13	31.73	30.65
Age	40.12	34.87	41.21	42.01	41.66	32.73	41.02	41.60
Sample Size	1,500	326	10,800	225,800	5,100	977	31,600	127,000
DID (2nd-1st): 2.58 (3.42)								
DID (Nat-1st): -0.44 (1.59)								
<u>Percent Immigrant Black</u>								
Black Immigrants (%)	0.51	0.51	0.40	0.33	6.82	6.43	4.28	4.36
Idle (%)	31.17	26.71	32.61	31.47	27.36	25.38	31.77	30.77
Age	39.43	35.95	41.00	41.92	41.97	31.90	41.22	41.66
Sample Size	1,800	469	26,200	277,800	4,700	834	16,200	74,900
DID (2nd-1st): 2.43 (3.19)								
DID (Nat-1st): 2.99* (1.53)								

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. The county characteristics are drawn from the 2000 Census Summary File 3. The cutoff is based on the mean level of each measure across all individuals.

Table B.5: Convergence in Idleness Probabilities for Black Men Across Generations by Children in Household and Relationship Status

	All		Singles		Cohabiting		Married	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	No Child	Child	No Child	Child	No Child	Child	No Child	Child
First Generation	-0.105*** (0.0109)	-0.0775*** (0.00960)	-0.104*** (0.0145)	-0.117*** (0.0424)	-0.0381 (0.0485)	-0.0212 (0.0881)	-0.0797*** (0.0172)	-0.0619*** (0.00955)
Second Generation	-0.0103 (0.0159)	-0.0323 (0.0224)	-0.00942 (0.0182)	-0.117* (0.0629)	0.00349 (0.0689)	-0.0458 (0.138)	-0.0264 (0.0346)	-0.0203 (0.0238)
Observations	41430	22429	26226	2800	2332	603	12872	19026
Adjusted R^2	0.111	0.094	0.128	0.102	0.114	0.051	0.112	0.087

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

All regressions for schooling, a quadratic in potential experience, state and year fixed effects, and an urban indicator. The sample consists of 18-65 years olds in the March CPS samples from 2000-2013. Immigrants are restricted to have been in the US more than 10 year.

Table B.6: Convergence in Idleness Probabilities Within Generations for Black Immigrant Women by Location Factors

	(1)	(2)	(3)	(4)
Age of Immigration	-0.000602*** (0.000226)	-0.00102*** (0.000227)	-0.000797*** (0.000264)	0.00151*** (0.000419)
<u>Housing Segregation</u>				
Hous. Seg.	0.0204*** (0.000716)	0.0165*** (0.000693)	0.0220*** (0.000838)	0.00553*** (0.00117)
Hous. Seg.*Age of Imm.	-0.000790*** (0.0000819)	-0.000763*** (0.0000823)	-0.000799*** (0.0000959)	-0.000448*** (0.000151)
<u>Segregation of the Poor</u>				
Seg. Poor	0.00975*** (0.00118)	0.00975*** (0.00115)	0.0102*** (0.00137)	0.00102 (0.00202)
Seg. Poor*Age of Imm.	0.000172 (0.000133)	0.0000241 (0.000134)	0.0000867 (0.000155)	0.000645*** (0.000245)
<u>Percent College Degree</u>				
College	-0.0236*** (0.000804)	-0.0149*** (0.000781)	-0.0214*** (0.000963)	-0.00484*** (0.00129)
College*Age of Imm.	0.000428*** (0.0000801)	0.000340*** (0.0000816)	0.000306*** (0.0000951)	0.0000511 (0.000146)
<u>Percent Black</u>				
Black	-0.00571*** (0.000723)	-0.00760*** (0.000701)	-0.00562*** (0.000834)	-0.00546*** (0.00123)
Black*Age of Imm.	0.0000566 (0.0000957)	0.000379*** (0.0000960)	0.000150 (0.000112)	-0.000150 (0.000183)
<u>Percent Immigrant Blacks</u>				
Immigrant Black	0.000200 (0.000149)	0.000642*** (0.000143)	0.000714*** (0.000173)	0.000204 (0.000245)
Imm. Black*Age of Imm.	-0.0000355*** (0.0000121)	-0.0000897*** (0.0000122)	-0.0000592*** (0.0000139)	-0.0000357 (0.0000242)
Schooling	X			
No College				
College	X			
Observations	782700	782700	635356	147344
Adjusted R^2	0.062	0.114	0.055	0.062

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Housing segregation, segregation of the poor, percent black, percent black immigrant, and percent with a college degree are all normalized to their z-score. All regressions control for a quadratic in potential experience, years in the US, and the annual unemployment rate. The sample consists of 18-65 year olds in the census/ACS samples from 2000-2012.

Table B.7: Racially Charged Search (RCS) and Convergence in Idleness Probabilities for Blacks Within Generations (Sensitivity Analysis)

	(1)	(2)	(3)	(4)
<u>Panel A</u>				
Age of Immigration	-0.00379*** (0.000130)	-0.00228*** (0.000251)	-0.00364*** (0.000130)	-0.00207*** (0.000253)
RCS	0.0193*** (0.00161)	0.0179*** (0.00162)	0.0135*** (0.00163)	0.0119*** (0.00164)
RCS*Age of Imm.	-0.00132*** (0.000204)	-0.00207*** (0.000438)	-0.00118*** (0.000204)	-0.00188*** (0.000440)
Observations	622184	593943	622184	593943
Adjusted R^2	0.114	0.110	0.117	0.113
<u>Panel B: Women</u>				
Age of Immigration	-0.00167*** (0.000134)	0.000241 (0.000250)	-0.00154*** (0.000135)	0.000404 (0.000251)
RCS	0.00876*** (0.00146)	0.00802*** (0.00146)	0.00482*** (0.00147)	0.00382*** (0.00148)
RCS*Age of Imm.	-0.000559** (0.000231)	-0.00177*** (0.000472)	-0.000475** (0.000232)	-0.00164*** (0.000474)
Observations	755315	723534	755315	723534
Adjusted R^2	0.114	0.116	0.115	0.117
Only Refugees	X		X	
Only Non-Refugees		X		X
Black-White Gap			X	X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

All regressions control for a quadratic in potential experience, schooling, years in the US, and the annual unemployment rate. The sample consists of 18-65 year olds in the census/ACS from 2000-2012. Refugee status is imputed from an immigrant's origin and year of immigration (see Appendix B). Racially charged searches are measured at the media market level while the black-white gap, percent black, and percent with a college degree are at the county level.

The black white median income gap is in \$1000s.

Table B.8: Earnings by Cohort and Time Spent in the US

	0-5 years	5-10 years	10-15 years	15-20 years	21+ years
before 1970	42,800	36,000	35,400	44,800	43,900
1970-1979	42,500	27,400	35,400	39,900	44,500
1980-1989	34,200	28,200	34,700	38,800	41,100
1990-1999	26,300	30,300	33,500	33,100	37,200
2000-2012	18,900	26,200	30,400	.	.

The sample consists of 18-65 year olds in the censuses 1950-2000 and the American Community Survey from 2000-2011. Earnings are in 2010 Dollars.

Table B.9: Age Earnings Profile for Black Immigrants Compared to Black Natives (Log Annual Earnings)

	(1)	(2)	(3)	(4)
pre 1970	0.290*** (0.0183)	0.250*** (0.0237)	0.0182 (0.0178)	0.0949*** (0.0231)
1970-1979	0.281*** (0.0118)	0.216*** (0.0195)	0.0283** (0.0117)	0.0495*** (0.0191)
1980-1989	0.203*** (0.00898)	0.135*** (0.0158)	0.0362*** (0.00891)	0.0214 (0.0153)
1990-1999	0.145*** (0.00870)	0.0509*** (0.0144)	0.0234*** (0.00841)	-0.0638*** (0.0138)
2000-2012	-0.0796*** (0.0120)	-0.184*** (0.0139)	-0.168*** (0.0119)	-0.299*** (0.0137)
Observations	1371158	1371158	1371158	1371158
Adjusted R^2	0.156	0.152	0.249	0.237
Year Fixed Effects	X		X	
Years Spent in US		X		X
Schooling & State FEs			X	X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The sample consists of 18-65 years olds in the census samples from 1970-2000 and ACS samples from 2001-2012. All regressions control for a quadratic in potential experience.

Table B.10: Age Earnings Profile for Black Immigrants Compared to Black Natives with 0-Earners (Log Annual Earnings)

	(1)	(2)	(3)	(4)
pre 1970	1.160*** (0.0613)	1.290*** (0.0767)	0.533*** (0.0630)	1.045*** (0.0785)
1970-1979	1.507*** (0.0401)	1.487*** (0.0570)	0.955*** (0.0413)	1.217*** (0.0587)
1980-1989	1.478*** (0.0278)	1.398*** (0.0473)	1.121*** (0.0291)	1.213*** (0.0490)
1990-1999	1.242*** (0.0289)	0.957*** (0.0460)	0.937*** (0.0296)	0.674*** (0.0470)
2000-2012	0.687*** (0.0386)	0.189*** (0.0433)	0.425*** (0.0388)	-0.131*** (0.0436)
Observations	1852974	1852974	1852974	1852974
Adjusted R^2	0.091	0.074	0.162	0.134
Year Fixed Effects	X		X	
Years Spent in US		X		X
Schooling & State FEs			X	X

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The sample consists of 18-65 years olds in the census samples from 1970-2000 and ACS samples from 2001-2012. All regressions control for a quadratic in potential experience. 0-Earners are given a dollar.

Table B.11: Observations by Age of Immigration for Men

	Blacks	Hispanics	Asians	Whites
Age of Imm.				
0	1,677	7,150	5,255	24,352
1	1,664	6,485	5,013	20,866
2	1,464	6,449	5,076	15,847
3	1,277	6,207	4,937	10,766
4	1,170	6,484	4,990	9,004
5	1,445	6,651	5,187	7,973
6	1,301	6,423	5,124	6,978
7	1,434	6,566	5,309	6,508
8	1,560	6,922	5,534	6,286
9	1,706	7,303	6,045	6,338
10	1,798	7,514	6,266	6,402
11	1,786	8,042	6,485	5,962
12	2,017	8,885	6,862	5,940
13	2,277	10,308	7,133	6,045
14	2,386	13,095	7,796	6,232
15	2,666	16,880	8,369	6,574
16	3,132	21,428	9,243	7,115
17	3,632	25,775	11,246	9,149
18	3,985	27,254	13,104	10,587
19	4,273	26,477	12,919	10,142
20	4,536	24,693	13,496	9,982
21	4,277	20,902	14,188	10,511
22	4,178	18,977	15,760	11,931
23	4,202	17,367	16,840	12,683
24	4,399	16,026	17,806	12,978
25	4,268	14,893	18,281	12,748
26	4,133	13,417	17,359	12,110
27	4,028	12,281	16,121	11,429
28	3,750	11,282	14,822	10,650
29	3,616	10,215	13,779	9,983
30	3,522	9,503	12,079	9,282

This table is split across pages.

Table B.11, continued

	Blacks	Hispanics	Asians	Whites
<u>Age of Imm.</u>				
31	2,917	8,164	10,485	8,521
32	2,931	7,496	9,771	7,857
33	2,562	6,919	8,807	7,290
34	2,364	6,122	7,927	6,574
35	2,188	5,539	7,267	6,181
36	1,905	5,035	6,353	5,595
37	1,707	4,495	5,876	5,109
38	1,557	4,178	5,380	4,730
39	1,430	3,766	5,009	4,332
40	1,257	3,385	4,490	3,978

The sample consists of 18-65 year-olds in the census/ACS sample from 2000-2012.

Table B.12: Summary Statistics for CPS and ACS by County Availability

	CPS		Weighted CPS		ACS		Weighted ACS	
	No County	County	No County	County	No County	County	No County	County
Urban	23.92	38.85	38.85	38.85	56.44	98.45	98.45	98.45
North East	15.69	21.65	14.41	21.65	13.18	19.63	18.08	19.63
Midwest	29.21	14.05	30.34	14.05	27.26	20.36	25.66	20.36
South	42.15	29.53	42.65	29.53	45.80	33.24	44.53	33.24
West	12.95	34.77	12.60	34.77	12.84	26.48	11.26	26.48
Ann. Earnings	34,200	37,700	34,300	37,700	29,900	35,300	34,500	35,300
Employed (%)	73.22	72.99	73.05	72.99	69.80	70.99	72.25	70.99
Idle (%)	25.45	25.27	25.52	25.27	25.29	23.99	22.63	23.99
Cond. Ann. Earn.*	44,300	48,900	44,600	48,900	40,800	467,000	45,700	47,000
Age	42.19	41.61	41.77	41.61	40.79	40.25	40.44	40.25
Married (%)	63.17	59.62	60.91	59.62	55.72	53.74	54.40	53.74
HS dropout (%)	11.54	12.13	12.10	12.13	11.23	11.25	9.60	11.25
HS (%)	32.66	27.87	31.39	27.87	41.54	37.10	37.25	37.10
Some College (%)	28.81	28.48	28.36	28.48	24.76	24.24	24.97	24.24
College (%)	18.24	21.15	19.00	21.15	14.93	17.94	18.44	17.94
Grad School (%)	8.75	10.38	9.15	10.38	7.55	9.46	9.74	9.46
Sample Size	935,300	679,400	935,300	679,400	9,520,000	16,800,000	9,520,000	16,800,000

The sample consists of 18-65 years olds in the March CPS samples from 2000-2013 (columns (1)-(4)) and the census/ACS (columns (5)-(8)).

Odd-numbered columns include only individuals for whom no county information is available whereas even-numbered columns include only individuals for whom their county of residence is available. Weighted columns reweigh the sample to have the same percentage of residents living in urban areas. their county of residence is available. Weighted columns reweigh the sample to have the same percentage of residents living in urban areas. *Conditional outcomes only refer to employed individuals.

Appendix C: Data Description

Data Limitations

The data is drawn from the IPUMS database provided by King *et al.* (2010) and Ruggles *et al.* (2010) for the CPS and ACS, respectively. 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, 2,100 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 drops to 1,600 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 probabilities. 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 probabilities.

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 nor the ACS, however, asks 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.

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-skilled blacks and cause illusory convergence (Chandra 2003), leading to the inclusion of imputed data by most researchers. Bollinger & Hirsch (2006) show that this introduces substantial bias due to mismatch in the

Table B.13: Idleness Probabilities for the Average Black Immigrant Male by Housing Segregation in the County

	Imm. at Age 5	Imm. at Age 35
Low Housing Segregation (County)	22%	10%
High Housing Segregation (County)	25%	13%

Note: Predicted values for these four scenarios are obtained by running $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \epsilon$ for those in counties with low housing segregation (below the 25th percentile) and those in an area with high housing segregation (above the 75th percentile). m are age of arrival indicators. Except for age of immigration, all variables are set to the average values for black immigrant males. All regressions control for education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in five year bins.

Table B.14: Idleness Probabilities for the Average Black Immigrant Male by the Racially Charged Search Index in the County

	Imm. at Age 5	Imm. at Age 35
Low Racially Charged Search (County)	20%	11%
High Racially Charged Search (County)	23%	12%

Note: Predicted values for these four scenarios are obtained by running $Idle = X'\beta + \sum_{m=1}^M \beta_{1m}m + \epsilon$ for those in counties with low number of racially charged searches (below the 25th percentile) and those in an area with a high number of racially charged searches (above the 75th percentile). m are age of arrival indicators. Except for age of immigration, all variables are set to the average values for black immigrant males. All regressions control for education, potential experience, time spent in the US, state fixed effects, and the annual unemployment rate. Age of immigration is in five year bins.

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 substantially change the results.

Census and ACS Data

This dissertation 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% 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 2001-2012 ACS sample represent about .4% of the population in years 2001-2004 and 1% thereafter.

Sample Restrictions

- Age: The sample includes individuals aged 18-65.
- Race: Individuals are coded as black, Asian, and white if they are non-Hispanic. Hence Hispanics consist of different races in this sample.
- Earnings: In the results presented I exclude persons with negative earnings. Only a very small fraction of individuals have negative earnings.

Constructed Variables

- Wages: $\text{Wage} = \text{Annual Earnings} / (\text{Weeks worked} * \text{Hours worked per week})$. 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 2012 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 2012 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 2012 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 2012 samples.

- Labor force participation, employment, and idleness are three important variables in the analysis. Both variables are coded referring 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 IPUMS 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 dissertation pools the 2008-2012 and the 2009-2013 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 18-65.
- Race: Individuals are coded as black, Asian, and white if they are non-Hispanic. Hence Hispanics are consist of different races in this sample.
- Earnings: In the results presented I excluded persons with negative earnings. Only a very small fraction of individuals have negative earnings.

Constructed variables

- Annual earnings: Annual earnings include earnings, farm and business income.
- Wages: $\text{Wage} = \text{Annual Earnings} / (\text{Weeks worked} * \text{Hours worked per week})$. 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 a 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, employment, and idleness are comparable to those in the ACS/census.

Refugee status

The world fact book provides estimates of refugees and internally displaced persons for each country. An individual was coded as a refugee if he or she immigrated from a country in unrest in a year in which many refugees fled the country. For more recent years (2000-2013) the Office of Refugee Resettlement has detailed data on refugee arrival by source country, which was used to infer refugee status.

County Level Data from the Census 2000

Aggregate level data on census tracts and counties is drawn from the Summary File 3 of the 2000 Census. Counties are the most detailed geographic areas that can be estimated for the census, ACS, and CPS data. However, county-level data is only available for 63% of the 2000-2012 census/ACS sample and 42% of the 2000-2013 CPS sample.¹ Table B.12 compares individuals by county availability in order to determine how representative the limited samples are. The first and last four columns focus on the 2000-2013 CPS sample and 2000-2012 census/ACS sample, respectively. Odd-numbered columns include only individuals for whom no county information is available whereas even-numbered columns include only individuals for whom their county of residence is available. Weighted columns reweigh

¹County-level data is available for 85% and 67% of black immigrants for the census/ACS and CPS sample, respectively.

the sample to have the same percentage of residents living in urban areas. With the exception of the regional division, this leaves the census/ACS sample looking very similar across individuals with and without county information.

Note that the aggregated level data drawn from 2000 Census Summary File 3 does not contain the number of black immigrants. However, it does contain the number of immigrants from various countries. To calculate the number of black african immigrants I add up the immigrants from Eastern, Northern, Central, Western, and Southern Africa and weigh each group by the fraction of them that are black in the 2000-2002 ACS.² Similarly, caribbean non-Hispanic black immigrants are estimated by adding up the immigrants from Jamaica, Haiti, Barbados and Trinidad and Tobago and weighing them by the fraction black in the 2000-2002 ACS. Note that I am ignoring black immigrants from Asia, South America, Europe, Oceania, and the remaining North American countries. Immigrants from these countries together comprise 17% of all black immigrants.

When assigning the county percentage of immigrants from the same country, I can only use the countries that are available in the Census 2000 Summary File 3. Immigrants from Jamaica, Haiti, Barbados, and Trinidad and Tobago make up 87% of the non-Hispanic black Caribbean immigrants in the 2000-2002 ACS. Immigrants from Egypt, Ethiopia, South Africa, Ghana, Nigeria and Sierra Leone make up 50% of black African immigrants.

Dissimilarity Index Definition

The dissimilarity index relies on splitting the sample into two mutually exclusive and collectively exhaustive groups. In this dissertation these groups are a) blacks and nonblacks b) rich and nonrich c) poor and nonpoor d) black rich and black nonrich and e) black poor and black nonpoor. These five groups of two and subsequent indices attempt to capture housing segregation, segregation of the rich, segregation of the poor, segregation of the black rich, and segregation of the black poor.

I measure segregation at the county level and proxy for neighborhoods with census tracts. The population of census tracts varies from 0 to 36,000 people with a mean and standard deviation of 4,400 and 2,200. The number of census tracts in a county varies from 0 to 2,050 with a mean and standard

²The weights are derived from the pooled 2000-2002 ACS sample in order to get large samples, allowing more precise estimation.

deviation of 20 and 67. These numbers could be somewhat misleading since they do not adjust for the number of people living in them and the vast majority of individuals lives in counties with many tracts. The average person lives in a county that has 330 tracts.

Counties are restricted to have at least 10 tracts in order to have enough variation to estimate segregation indices. This restriction only eliminates .003% of the segregation sample. In order to limit the measurement error, segregation indices are only calculated for counties with at least 10,000 people. Housing segregation and segregation of the rich black and the poor black are further limited to counties with at least 1,000 blacks. Indexing census tracts by i , the dissimilarity index of group 1 and 2 is defined as

$$DissimilarityIndex = \frac{1}{2} \sum_i^N \left| \frac{Group\ 1_i}{Group\ 1} - \frac{Group\ 2_i}{Group\ 2} \right| \quad (20)$$

where $Group\ 1_i$ are the number of Group 1 members in tract i . $Group\ 1$ are the number of Group 1 members in the county. If the two groups are distributed evenly, each term in absolute values is zero and so is the dissimilarity index. Analogously, if the members of Group 1 and 2 strictly live in different tracts, the dissimilarity index equals 1.

Racially Charged Search Data

The racially charged search index is drawn from Stephens-Davidowitz (2012). The proxy for racial animus is the percentage of an area's Google searches, from 2004-2007, that included the word "nigger" or its plural. Stephens-Davidowitz provides evidence that the racial epithet is not a rare search as it is included in more than 7 million searches annually. He also finds that about one quarter of the searches including the epithet also included the word "jokes", suggesting that individuals are seeking derogatory entertainment based on negative African-American stereotypes.

Stephens-Davidowitz uses Google-Insights to obtain all of his data. With Google Insights the percentage of an area's searches including the word of interest is taken from a random sample of total Google searches and then divided by a common factor. This yields a score of 100 for the top area. An

area j 's measure of racially charged search is approximately equivalent to

$$RaciallyChargedSearch_j = 100 * \frac{\left[\frac{Google\ searches\ including\ the\ word\ "nigger(s)"}{Total\ Google\ searches} \right]_j}{\left[\frac{Google\ searches\ including\ the\ word\ "nigger(s)"}{Total\ Google\ searches} \right]_{max}} \quad (21)$$

The racially charged search index cannot be easily read off Google Insights because Google Insights does not report data for a local area's search volume if the absolute value of the search volume is below an unreported threshold. Stephens-Davidowitz describes the algorithm he uses to obtain data for all media markets in great detail in his paper. In summary, he searches for the combination of the words "nigger(s)" and "weather" and subsequently subtracts the number of searches for "weather". The area's number of searches that include "weather" is available for all 200 media markets. Using Gentzkow & Shapiro (2008), Stephens-Davidowitz matches other data to the media markets. Since this dissertation uses county-level information, I make use of the fact that counties are matched with media markets in the dataset, and assign each county a racially charged search index.

Appendix D: Mathematical Proofs

Assumptions on the Errors

Following Blume *et al.* (2011), we make two standard assumptions on the error terms:

1. Let's assume that the expected value of ϵ_i is 0, conditional on the information set $(x_i, \bar{x}_g, y_g, i \in g)$

$$\forall i, g E(\epsilon_i | x_i, \bar{x}_g, y_g, i \in g) = 0$$

2. Let's assume that for each i, j, g, h such that $i \neq j$ or $g \neq h$

$$\text{cov}(\epsilon_i \epsilon_j | x_i, \bar{x}_g, y_g, i \in g, x_j, \bar{x}_h, y_h, j \in h) = 0$$

Condition (2) rules out conditional variation between errors. Including group memberships eliminates any link between the identity of the group and model errors, which allows groups to be treated as exchangeable.

Model Derivation

The choice of an immigrant in racial group g_1 with immigrant background g_2 is denoted as $\omega_{i,g_1,2} = \alpha_j \omega_{i,g_1} + (1 - \alpha_j) \omega_{i,g_2}$. Assume that g_1 evolves as follows

$$\omega_{i,g_1} = k + cx_i + d\bar{x}_{g_1} + Jm_{i,g_1}^e + \epsilon_i$$

Restricting the evolution of choices to be consistent with the model, ignoring the intercept, and taking the limit as the number of group members approaches infinity, we get the following equation

$$\bar{\omega}_{g_1} = c\bar{x}_{g_1} + d\bar{x}_{g_1} + \bar{J}\bar{\omega}_{g_1} + \bar{\epsilon}_{g_1} \quad (22)$$

Solving for $\bar{\omega}_{g_1}$, gives us

$$\bar{\omega}_{g_1} = \frac{(c+d)}{1-J} \bar{x}_{g_1} + \frac{\bar{\epsilon}_{g_1}}{1-J} \quad (23)$$

Plugging (23) back into (11) gives us

$$\omega_{i,g_1} = k + cx_i + \frac{d+Jc}{1-J} \bar{x}_{g_1} + \frac{J}{1-J} \bar{\epsilon}_{g_1} + \epsilon_i \quad (24)$$

or

$$\omega_{i,g_1} = \pi_0 + \pi_1 x_i + \pi_2 \bar{x}_{g_1} + v_{i,g_1} \quad (25)$$

Recall that the decision rule of group 2 members evolves as follows

$$\omega_{i,g_2} = k + cx_i + v_{i,g_2} = \pi_0 + \pi_1 x_i + v_{i,g_2} \quad (26)$$

Returning to the joint choice probability, we get

$$\omega_{i,g_{1,2}} = \alpha_j (\pi_0 + \pi_1 x_i + \pi_2 \bar{x}_{g_1} + v_{i,g_1}) + (1 - \alpha_j) (\pi_0 + \pi_1 x_i + v_{i,g_2}) \quad (27)$$

Simplifying, this gives us

$$\omega_{i,g_{1,2}} = \pi_0 + \pi_1 x_i + \alpha_j \pi_2 \bar{x}_{g_1} + v_{i,g_{1,2}} \quad (28)$$

where α_j measures the degree of assimilation.

Appendix E: Welfare Eligibility Requirements for Non-Citizens

The programs discussed here are the Supplementary Security Income (SSI), Supplemental Nutrition Assistance Program (SNAP), the Temporary Assistance for Needy Families (TANF), Medicaid, and State Children's Health Insurance Program (SCHIP). When determining welfare eligibility for non-citizens, two broad criteria are generally taken into account.¹ The most general screen is the "qualified" versus "not qualified" alien. Qualified immigrants include legal permanent residents (LPRs), refugees, asylees, Cuban/Haitian entrants, and a few smaller categories. Non-qualified immigrants mostly include illegal and temporary immigrants. Non-qualified immigrants are largely ineligible for all except emergency benefits. The second factor determining eligibility is the date of entry into the United States. Up until 2002, qualified immigrants who entered after August 22, 1996 were barred from SSI and SNAP until they become citizens and from TANF, Medicaid, and SCHIP for five years after entry. Immigrants who entered before 1996 were eligible for TANF, Medicaid, SCHIP, and SSI but food stamp eligibility remained more restricted. Today, lawful permanent residents must wait at least five years to be eligible for benefits, but states have the option of providing them earlier. Refugees and asylees are generally eligible for public benefits if they meet the eligibility criteria.

Camarota (2011, 2012) finds that immigrant-headed households use more Medicaid than native-headed households with children and had higher food assistance, but lower cash assistance. This study, however, did not adjust for income. In other words, the percent of immigrants receiving benefits is higher in part because a greater percent of immigrants are low-income, and more likely to be eligible for public benefits. Ku & Bruen (2013) find that low-income non-citizen children and adults (below the 200% poverty line) generally use Medicaid, SNAP, cash assistance, and SSI at a lower rate than comparable low-income native-born children and adults.

¹This discussion draws from Fix & Haskins (2002) and Ku & Bruen (2013).