OLD BUT NOT LATE

Age of Arrival Effect and The College Education of Anglophone and non-Anglophone African Immigrants in the US.

Replication Code & Data

For the replication data & codes, please refer to the: OSF Folder.

- The "cleaned" data is stored in single data frames `oldbutnot.csv file`
- The code that loads the data and runs the analyses for the main specifications is `oldbutnotlate_analysis.R` file.
- The code for cleaning the data is `oldbutnotlate_cleaning.R` file.
- Raw Data are available on Integrated Public Use Microdata Series (IPUMS), USA and 1980, 1990, and 2000 5 % PUMS together website

Abstract

This study aims to investigate the relationship between age of arrival and earnings among male immigrants from 23 African countries in the United States, with a specific focus on the influence of college education and pre-migration lingua franca. Previous research has demonstrated that older immigrants may face a disadvantage due to spending less time in their host countries compared to those who arrive at an earlier age and that the overall impact of immigration is closely tied to the age of arrival and the migrants' level of education. The analysis conducted in this study encompasses two distinct time periods: 1980-1995 and 1995-2014, characterized by significant changes in the influx of college-educated immigrants and an increase in the average age at which immigrants arrived in the US. Additional robustness checks showed similar results when the wages of African immigrants were compared to native-born Americans of the same age and education. The findings reveal that for African immigrants who arrived before 1995, there is no discernible systematic difference in earnings based on arrival ages, mainly driven by those who obtained a college education in the US. Additionally, Anglophone immigrants earn significantly more than non-Anglophone African countries, who generally possess lower levels of education, exhibit lower proficiency in English, and hail from countries where English is not the primary language of instruction. This distinction underscores the importance of exploring pre-migration experiences that may carry significance within the US context, as well as considering US policies on skilled migration that influence the independent effect of late arrivals.

Keywords: **Age of Arrival; African Immigrants; Language; Education Migration.**

3 Chapter Three

3.1 Introduction

The average age of immigrant arrival in the US has increased significantly over the years and was 25.7 years in 2010 and has risen to 30.6 years in 2019 (Camarota and Zeigler, 2019), which raises concerns about policies that favour younger arrivals and assumes that older arrivals may lack the necessary social and cultural capital to integrate successfully.

This trend towards older arrivals may have implications for immigration policies (National Academies of Sciences, Medicine, et al. 2017) as the age at which an immigrant migrates can affect where they receive a significant portion of their education, which in turn can impact their future wages. However, research has not yet examined how an immigrant's age at migration intersects with their college education and life course dynamics. There is longstanding evidence that a US college education greatly increases immigrants' earnings compared to education obtained in their home countries (Batalova & Fix, 2016; Fogg & Harrington, 2012; Fogg & Harrington, 2012). Given that wages may strongly depend on college education, it has been uncertain to what extent acquiring a college education in the US or receiving an African education that is valued in the US contributes to the age-of-arrival effect on wages across time.

This paper challenges current immigration policies that prioritize younger arrivals by assigning them higher immigration points compared to those who arrived later. For instance, Canada's Express Entry system implements a points-based system where younger applicants receive more points than older individuals. Similarly, Germany is considering the implementation of the "opportunity card" (Chancenkarte), which assigns lower points to older arrivals and sets the maximum arrival age at 35. However, it is crucial to understand why arrival age truly matters and what its implications are. This study aims to investigate the role of immigrants' place of college education in differentiating the effect of arrival age on their earnings. By examining the qualifications of immigrants upon arrival, we can assess whether arriving at a relatively older age has an impact on their earning potential. To analyze this, I utilize samples from 23 African countries in the United States, considering variations in pre-migration language proficiency. The focus of this research is to explore the relationship between college education, the age of arrival and immigrants' earnings.

Uncertainty regarding immigrants' skills and qualifications prior to migration, the lack of recognition of foreign education by US employers (Friedberg, 2000), racial discrimination (Zwysen, Di Stasio, and Heath, 2021; Quillian et al., 2019; Dodoo, 1997; Dodoo and Takyi, 2002), and language barriers at the time of immigration (Chiswick and Miller, 1994; Kreisberg, 2019; Case et al., 2002; Kresiberg, 2019) are factors associated with US employers and labor market policies. These factors imply that the transferability of immigrants' skills and qualifications may depend on the age at which they arrived in the US. Immigrants who arrived as children (before age 10) may be more likely to overcome these constraints (Alexander and Ward 2018; Hermansen 2017; Schaafsma

and Sweetman 2001). Child arrivals [1] may have greater earning potential compared to those who arrived as teenagers (11-17 years) or young adults (18-23) (Greenman and Xie, 2008, Ellwood, 2000).

Previous research has explored the impact of the place of qualification on human capital (Lancee Bol, 2017; Chiswick Miller, 2009), but there is still a gap in understanding whether the value associated with the place of qualification alters the age-of-arrival deficit reported in prior literature, as well as whether this value changes over ti2me.

This paper aims to address three research questions. The first question examines whether we can differentiate the effects of age-at-arrival on earnings by considering qualifications-at-arrival. In other words, by incorporating both age-of-arrival and qualifications-at-arrival into the same model, we can gauge the extent to which each of these factors influences the wages of African immigrants. Specifically, I posit that in the pre-1995 era, characterized by a greater emphasis on non-education immigration purposes, there is no significant difference in arrival age between immigrants who arrived early and those who arrived as late as 30, irrespective of whether they obtained a US college education (Hypothesis One). In other words, before 1995, many African immigrants came to the United States for non-education reasons, like finding jobs or as refugees which connotes that the age at which they arrived is likely not to have had as much impact on their future earnings.

Secondly, during the post-1995 era, characterized by a heightened emphasis on immigration driven by education and the increased influx of college-educated immigrants, my argument asserts that individuals who arrived at a younger age were more prone to display significant differences in their age at arrival (Hypothesis Two). To put it differently, after 1995, numerous African immigrants came to the United States primarily to pursue educational opportunities. This is likely due to the fact that most African immigrants in this era were college-educated, and African education held a higher value in the US. Existing research has indicated the high educational attainment and longer duration of schooling of African Immigrants in recent years compared to US-born citizens (Dodoo, 1997; Dodoo and Takyi, 2002; Kalmijn, 1996).

The third research question seeks to examine the role of pre-migration cultural capital, characterized by the Immigrant's primary language spoken and the language of instruction during their schooling before migration. In other words, I argue that the earnings of immigrants from Anglophone African countries are significantly higher than those from non-Anglophone African countries (Hypothesis Three). Both groups also exhibit notable differences in their rates of college education completion.

The paper's structure consists of an initial discussion regarding the importance of African immigrants who complete a US education, a summary of US immigration policies, the potential for systematic differences between young and older arrivals, and the diminished impact of these differences on college-educated immigrants. It proceeds to explore earnings variations between Anglo and non-Anglo Africans, drawing from prior research. Following this, the paper presents analytical findings, engages in result discussion, and ultimately arrives at a conclusion.

[1] See Table 3.1 for conceptual clarity on the difference between child, teenage, and adult arrivals.

3.2 US Immigration Policies and Education Immigrants

The US Immigration and Nationality Act of 1965 abolished the National Origins Quota, which had been the main US immigration policy since the 1920s. The old policy aimed to discourage immigration from Asian, Southern, and Eastern Europeans.

A newer 1965 act, in contrast, focused on family unification and meeting the labour market needs of the US. In other words, before 1995, immigration to the United States was not primarily dependent on education or the value of African college education in this case. Arriving at a relatively older age may be less significant and the effect of immigrants obtaining a US college education than those received at home may be stronger. It is believed that the Immigration and Nationality Act of 1965, passed during the civil rights movement, aimed to capture family members and increase the number of refugees and asylum seekers in the United States, replacing the previous immigration cap before 1965. These factors were the main drivers of immigration before 1990 (Massey and Pren, 2012; Abramitzky and Boustan, 2017). These factors played a more prominent role in immigration decisions, rather than solely focusing on the value of African college education.

The implementation of the 1990 Immigration Act and the Diversity Visa Program in 1992 led to a significant increase in nonimmigrant visas, such as the H-1B visa, for highly skilled African workers in the United States (Jasso 2011; Kollehlon and Eule 2003; Ikubolajeh and Thomas 2012).

In my investigation, I have chosen 1980 as the starting arrival year, a few years after the 1965 Act, 1995 as the cutoff point and 2014 as the endpoint to include only immigrants who may have had the opportunity to work in the United States.

3.3 Earning Differentials among Anglophone and Non-Anglophone Africans in the USA

Using the 2000-2011 waves of the US census data, Elo et al. (2015) examined the labour market outcomes of Africans in the US and found that though early arrivals (below 18) on average earn more, there are earning differentials between early and late arrivals. Male African immigrants from Nigeria, Ghana, Liberia, Egypt, Ethiopia, Eritrea, and Cape Verde do better when they arrive after the age of 18, though this paper does not delve into why these intra-country variations are observed. A reverse trend was observed among early arrivals from South Africa, Zimbabwe, Senegal, and Cameroon. These differences may be specific to the waves and years that were studied. While they do not focus on the mechanism that drives these differentials, their research shows that the labour market outcomes for Africans in the United States may be nuanced and complex.

Also using US census data, Kollehlon and Eule (2003) found that English-speaking white African men earn more than their non-white and non-English-speaking counterparts. They suggested that the differences between white African men and black African men are due to the context of perception and that spending more time in the United States does not erase pre-migration conditions such as race and the "perception" of the

dominant language in an immigrant's country of origin.

Bleakley and Chin (2004) also found that English fluency at the time of migration, which is often correlated with the dominant language of the country of origin, determines wage equality. Research shows that a US degree increases the returns to education for immigrants (Bratsberg and Ragan Jr 2002; Friedberg 2000) but the outcomes vary by country of birth. This is likely due to two reasons: (1) the school-skill gap and (2) the lingua franca in the country of origin. The school-skill gap refers to whether a gap exists between the nature of schooling received in the country of origin and transferable skills in the host country's labor market. For example, Coulombe and Tremblay (2009) found that the skill-schooling gap decreased with the annual per capita income of the country of origin. Similarly, Mattoo et al. (2008) found that the probability of college-educated migrants obtaining a job in the United States varies by country of origin and is influenced by the country's expenditure on education and medium of instruction.

Prior studies have shown that language is a significant determinant of economic assimilation. There are indications that language ability improves both economic and social assimilation (Bleakley and Chin 2004; Chiswick 1978). Chiswick (1978) shows that English speaking and reading fluency at the time of migration makes a difference in the success of immigrants. In another example, Bleakley and Chin (2004) found that those who have English-speaking skills are more likely to complete a reasonable minimum education such as high school, which increases their chances of reducing the native-immigrant gap. This supports the need for a general consideration of the baseline status of groups as a way of estimating the impact of integration factors that are likely to bridge the native-status gap (Kalmijn 2012).

3.4 The role of US college education: Are there systematic differences between children and older arrivals?

Sociologists have often been interested in reexamining the threshold between childhood and teenage arrivals, aiming to define the ideal dichotomy between early vs old. For example, Myers et al. (2009) tested the explanatory power of multiple age categories and their impact on wage inequality and concluded that examining multiple categories (more than 3) is better than the 3-level generational arrivals category suggested by Rumbaut (2004). The objective of related research has been to understand the mechanism and context by which early arrivals influence an immigrant's economic success. In this section, I will present what prior research suggests about the context of arriving early as a migrant and what that means for immigrants who are able to receive a US college education.

Previous research gives us reasons to believe that child arrivals (immigrants who arrived between the ages of 1-10) are more likely to reduce the wage gap compared to other arrivals, referred to as older (teenage or college-aged) immigrants, for three main reasons. (1) Child arrivals have more time and resources to assimilate in the US due to spending more years in the country, (2) they may have higher transferable skills that are required in the US labor market, and (3) they have more networks that improve their chances of economic integration.

The second and third advantages of early arrivals (easier skills transferability and more networks) raise a related question within the structural assimilation framework (SAF), which allows us to explore whether early arrivals and older arrivals have significant wage differentials if they earn a college degree in the United States. The SAF posits that education exposes immigrants to information and networks that reduce potential inequality. This may be particularly important for African immigrants, who are known to be highly educated (Kollehlon and Eule 2003).

I examine first, the conceptual differences between what may be considered early or late arrival, and second, how these differences may affect the outcome of interest. I describe these differences in three forms: cultural, linguistic, and human capital differences.

First, cultural variations capture the way in which children's experiences with ethnic awareness and social assimilation differ. Early arrivals can adjust quickly to the host country and develop a lower sense of ethnic separation from their country of origin (Hutnik 1986; Phinney 1990). On the other hand, older arrivals may have more complex identities by trying to combine the cultures learned in their country of origin with the culture of the new country (Rumbaut and Portes 2001). This suggests that what leads to a discontinuity in the decline of the effect of arrival ages is whether immigrants are likely to be subjected to cultural distortions. As college education presupposes universality, college students may be less likely to be subject to the whims of cultural cleavages that are similar to what is experienced by those arriving at older ages.

Secondly, it is believed that older immigrants may have limited exposure to English and thus is subjected to a higher wage gap (Basu 2018; Meng and Gregory 2005; C. Wang and L. Wang 2011). Bleakley and Chin (2004) found that immigrants who arrived at age 9 have the same English proficiency in both Anglophone and non-Anglophone countries, after which there is a decline for older arrivals. They also found that English proficiency improves labour outcomes for immigrants and their spouses (English proficiency also increases the chances of intermarriage). Immigrants with lower English proficiency may find it difficult to adjust to schools (Chiswick and Miller, 1994), but college students may not face this challenge for two reasons. First, it is related to selectivity - one main criterion for college education in the US is that applicants should have English proficiency or be successful in the Test of English as a Foreign Language (TOEFL). Second, the structural advantage of education makes immigrants adjust to speaking better English over time, even if they have arrived from non-English speaking regions. College arrivals in the context of language proficiency may not be referred to as late arrivals if they are or become proficient in English.

The final explanation for why college arrivals may not be referred to as late arrivals is the human capital differences; it is assumed that those who arrived as children have earned most of their education in the US and may have higher skill levels. While this may be true and intuitive, if the United States college education provides the substantial skills that students need and if immigrants are able to adjust to college, the differences between child arrival and older arrivals may not be significant.

Critics of what constitutes early arrivals have shown that, for example, older arrivals from Eastern Europe in the US earn more than those from Northern and Western Europe with the same level of education, despite the Northerners/Westerners having a significantly higher level of completed education (Alexander and Ward 2018). This was

because the education received by Northern and Western Europeans in the US was less valued, whereas the Eastern Europeans, though arriving later, were more exposed to a US education that was highly valuable.

It also depends on what outcomes are being measured. For example, Myers et al. (2009) show that early arrival was more important for language proficiency than for educational attainment and that older arrivals had less impact on college graduation than high school graduation. This result highlights the need to re-examine the impact of arrival ages on college-educated categories and specifically examine the origin of a college education.

3.5 Proportion of African Immigrants Completing a US Education and Age-of-Arrival, 1980-2010

In this section, I investigated whether more African immigrants completed higher levels of US education before and after 1995 (the cutoff year used in this paper). This investigation is crucial to comprehend potential shifts in the age-of-arrival effect, as US college education might exert a more significant influence on wages compared to African education or the absence of college education. In simpler terms, understanding whether arriving in the US at an early age is linked to completing US education can make a case for the positive impact of early arrivals. The greater the influence of US education or the higher the value placed on foreign education in the US job market among a generation of immigrants, the less severe the negative consequences might be for those who arrive as teenagers or young adults.

An analysis of census data (details of which are provided later in the paper), as seen in Figures 3.1 and 3.2, reveals that the proportion of child arrivals who completed a US college education is not consistently higher than that of teenage arrivals every year. However, in some years, especially after 1990, the proportion of teenage arrivals who completed a US college education was higher than that of child arrivals.

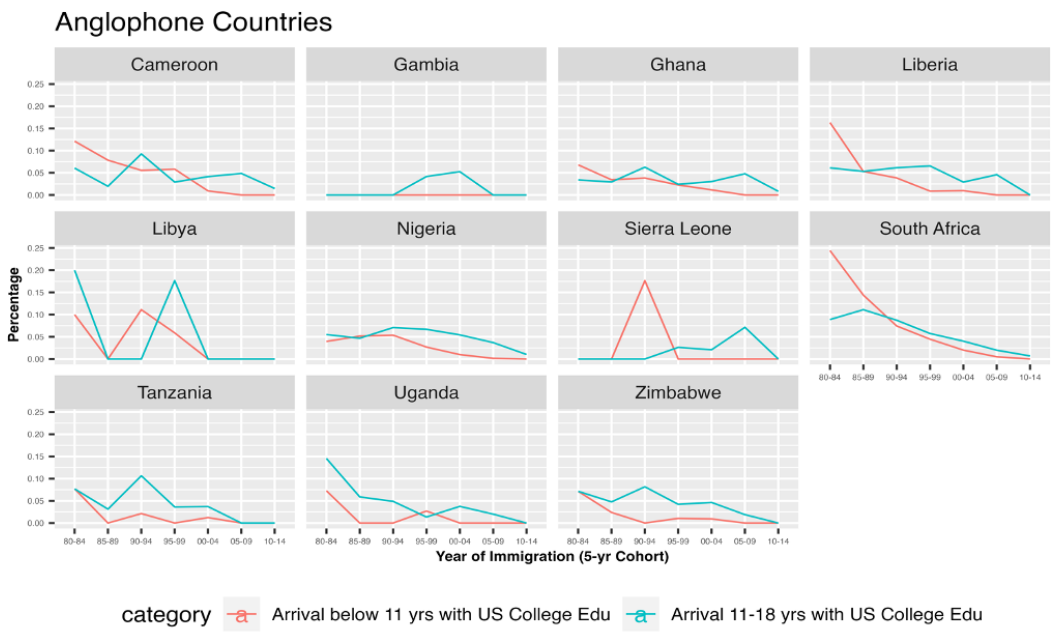

Figure 3.1: The Proportion of Anglophone African immigrants that completed a US college education from 1980-2014. Comparing teenage arrivals (11 - 18) and child arrivals (< the age of 11).

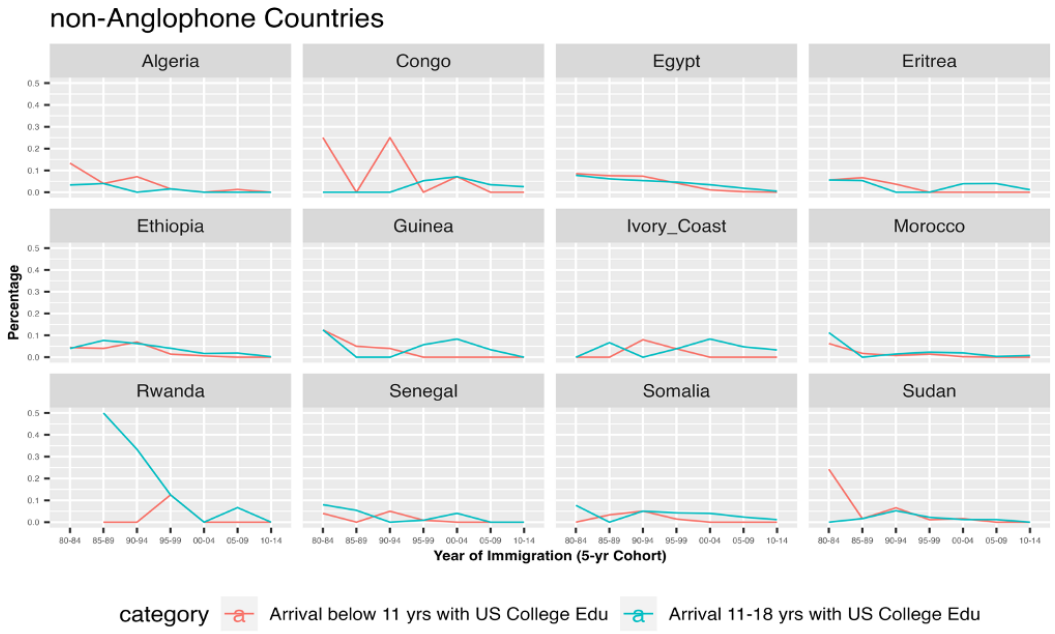

Figure 3.2: The Proportion of non-Anglophone African immigrants that completed a US college education from 1980-2014. Comparing teenage arrivals (11 - 18) and child arrivals (< the age of 11).

Additionally, on average, the proportion of US-educated arrivals under the age of 18 (teenage arrivals) and under the age of 11 (child arrivals) decreases every year. This trend can be attributed to an increase in the average age of new immigrants to the US.

These findings prompt further investigation into whether there is systematic variation in the wage differences between child arrivals and other older arrivals and the role of college education in explaining this mechanism.

3.6 Analytical Strategy: Linear Model

I used a random slope model to account for country-level variation in earnings and the wage gap, but it did not significantly impact the results of the linear model. The linear model examined the relationship between earnings, the wage gap, and factors such as the age of arrival, years of schooling, and intermarriage for immigrants, using control variables.

To estimate the age-earning profile of US-born citizens, I conducted a regression analysis, where income was regressed on the fixed effect of age and education. The residuals from this estimate were then subtracted from the immigrant's wage. The income-age profile was modelled using a full range of age-fixed effects. This method is a standard approach for estimating wage differential.

3.7 Data and Methods

Sample

I used 34 waves of data from both the 1980, 1990, and 2000 5% PUMS together with the 2005-2014 annual samples of the ACS American Community Survey (ACS), collected by the U.S. Census Bureau to create a sample of 23,958 male African-born migrants in the United States. This data was collected through multiple surveys, allowing for the representation of different cohorts of immigrants. The ACS survey is conducted annually by the U.S. Census Bureau and includes information on citizenship, education, income, language proficiency, migration, and employment for about 3.5 million residents per year. The survey samples 1% of the US population and weights are provided.

The sample used in the study consists of men who are currently employed and work as employees. Both immigrant and native-born men are included in the sample, with ages ranging from 25-64. The sample is specifically limited to African immigrants who arrived in the United States between 1980 and 2014.

Table 3.1: Conceptual Clarity

Terms	**Definition**	**Schooling Implication**
Educated Migrants		Immigrants who are currently in the United States who have attended at least two years of college and have lived in the United States for 10 years, on average.
Early Arrivals		
Child arrivals	Arrivals at the ages of 0-11.	Arrivals in this category are likely to have received their high school and post-high school education in the United States.
Teenage (Pre-college) Arrivals:	Arrival at the ages of 1-17.	Arrivals in this category are likely to have received their high school and post-high school education in the United States.
College-age arrivals	Arrival at the ages of 18- 23.	The schooling implication for these arrivals cannot be determined by their arrival ages. They are likely to have received their college education in the United States or in Africa.
Old Arrivals		
Post-college arrivals	Arrival at the ages of 24- 27 and 28- 30.	Arrivals in this category are likely to have received their college education in Africa.
Post-college arrivals	Arrival at the ages of 31- 50.	Arrivals in this category are likely to have received their college and post-graduate education in Africa and only received additional schooling in the United States.

Dependent Variable

Log Hourly Earnings: The earnings used in the study are based on pre-tax wages and salaries earned in the year prior to the census. These earnings are specific to money received as an employee. Hourly earnings are calculated by dividing annual earnings by the number of weeks and hours worked per year. Earnings above $5000/hour are capped (top coded) for the purpose of the study. To enable earnings comparison over time, the data were adjusted for inflation using the Consumer Price Index for All Urban

Consumers (CPI-U) from the Bureau of Labor Statistics and converted to constant 2020 dollars.

Adjusted Wage-gap: The wage gap used in this study is the difference in logged wages between native-born individuals and African immigrants, after controlling for the age and educational attainment of native-born men. This gap reflects the difference in wages between African immigrants and native-born individuals of the same age, gender, and education level. The methodology for calculating this gap is explained in more detail in the next section.

Explanatory Variables

Age of Arrival:

It is derived from the deduction of the years since the Immigrant's current Age. To categorize the age of arrival, I coded it into two different bin types. One is categorized into two-year bins (0-1, 2-3, etc) to capture the variety of slopes more closely, and the other captures the differences in college entry ages (1-5, 6-16, 17-22, 22-25 etc.).

Country of College Education: I used a binary variable that indicates whether an individual received a college education in the United States. Since there is no direct measure for this in the IPUMS data, I used methods from previous studies (Dodoo 1997; Alexander and Ward, 2018; Friedberg, 2000) to calculate this variable. The method assumes that an immigrant's age can be divided into three parts: 6 years of pre-schooling, schooling years, and years of work experience. The work experience of the immigrant is determined by subtracting their age from their schooling years and 6 years of pre-schooling. If an immigrant's work experience is greater than the number of years they have lived in the United States, it is likely that they received their college education abroad. This is because for immigrants to have worked for a number of years that is higher than the years spent in the United States, it is very likely that they completed their terminal education before migration and thus have their college education abroad. However, it's important to note that this method assumes that college-educated immigrants start working immediately after graduation, which may not always be the case. I also compared this method with another method which assumes that all immigrants who arrived in the United States before the age of 18 and have a college education received it in the United States but found no significant difference. Therefore, I decided to use the first method which is likely to be more valid.

Schooling Years: This measures the highest level of education completed by immigrants and its impact on the wage gap, excluding those currently enrolled. Education is divided into four categories (High School and Below, Some College, College, and Post-College) and converted into a numerical variable. No schooling is recorded as 0 years, Grades 1-4 as 2.5 years, Grades 5-8 as 6.5 years, Grades 9 as 9 years, Grades 10 as 10 years, Grade 11 as 11 years, high school as 12 years, some college as 13 years, an associate degree as 14.5 years, a bachelor's degree as 16 years, a master's degree as 18 years, and a professional or doctorate degree as 22 years.

Control Variables

Citizenship status: reports the citizenship status of respondents, distinguishing be-

tween naturalized citizens and non-citizens.

Year of Immigration: reports the year in which a foreign-born person entered the United States. To control for non-linearity, the quadratic form was also specified.

Gross Domestic Product (GDP) per capita: calculated as the percentage change in the real GDP per capita between two consecutive years for each immigrant at the year of migration. This was sourced from the World Bank Data.

English proficiency: English proficiency was attributed to three discrete scales. Immigrants who speak only English and speak very well are categorized as "Grade 1"; those who speak well (but not very well) are "Grade 2" speakers, while Immigrants who do not speak or do not speak well are referred to as "Grade 3".

Immigration Cohort: I divided this into five-year intervals: 1980-1984, 1985-1989, 1990-1994, 1995-1999; 2000-2004; 2005-2009; 2010-2014.

Interracial Marriage/Intraracial/Others: Interracial marriage includes the marriage of a male African immigrant to a white female US citizen rather than marrying a non-native female Black (intra-marriage). I only included those married for the first time to avoid the bias that may be due to marriages before migration. The assimilation effect of multiple marriages is hereby excluded. Other categories such as single, separated etc. are referred to like others.

Region: identifies the region and division where the Immigrant's housing unit was located.

Country-level Variables

country-Language: This is a binary variable that classifies countries based on whether English is the primary language spoken. The data is from the World Fact Book and includes 11 English-speaking countries (Ghana, Gambia, South Africa, Kenya, Libya, Liberia, Nigeria, Uganda, Tanzania, Cameroon, Sierra Leone) and 12 Non-English-speaking countries (Algeria, Guinea, Sudan, Morocco, Rwanda, Egypt, Senegal, Togo, Tunisia, Cameroon, Congo and Ivory Coast). Countries not included are not included in the sample's time frame.

3.8 Summary Statistics

In this section, I present an overview of the data on Anglophone and non-Anglophone immigrants in the selected cohorts. The number of immigrants in recent cohorts for each five-year period is higher for both Anglophone and non-Anglophone immigrants than for older groups. This trend can be attributed to the more liberal immigration policies of the United States after 1990.

3.8.1 Summary Statistics: Anglophone African Immigrants

Table 2 indicates that Anglophone immigrants who received their education in the United States are 17% less prevalent among older generation arrivals (1980-1994) than among those who arrived more recently (1995-2014). This is determined by comparing the percentage of Anglophone immigrants who completed a US education among those who arrived between 1980-1994, which is 30%, to those who arrived from 1995-2014, which is only 13%.

Additionally, among all Anglophone immigrants who arrived from 1995-2014, 12% arrived below the age of 18, compared to 7.3% among older generation arrivals (1980-1994). This suggests that while a lower percentage of new immigrants arrived below the age of 18 in both new and old cohorts, the proportion of new immigrants who arrived below the age of 18 during the period of 1995-2014 was nearly double that of older generation arrivals.

The data further indicates that a majority of Anglophone Africans in the US completed more of their college education in Africa in both the older generation (1980-1994) and newer generation (1995-2014) arrivals. Specifically, in the older generation arrivals (1980-1994), 36% of immigrants had completed their college education in Africa, while 30% of arrivals in the newer generation (1995-2014) had completed their college education in Africa. This aligns with another finding in Table 2, which shows that most Anglophone immigrants in the different eras (72.2% and 91.7% respectively) arrived in the US after the age of 18 and have completed college education. Additional results on the level of college education received by Anglophone vs non-Anglophone immigrants can be found in subsequent sections.

The average number of years spent in the United States by the old generation arrivals (1980-1994) is 24 years, while the average number of years spent by the new generation arrivals (1995-2014) is 10 years. Additionally, the average current age of the old generation arrivals is 48 years, while the average current age of the new generation arrivals is 41 years. These differences in the number of years spent in the US may be due to the sample restrictions, as the older generation arrivals are likely to include immigrants who have spent more years in the United States. However, both cohorts consist of men who are in the active stage of their work life, and their wages are likely to reflect their peak earning potential.

In the sample, the country with the highest number of African immigrants is Nigeria, making up 40% and 35% of old and new-generation arrivals, respectively. It is closely followed by Ghana (18% and 24%) and South Africa (18% and 13%). The number of Nigerian and South African immigrants has decreased slightly from what it used to be between 1980-1994, while the number of Ghanaian immigrants has increased over time. Additionally, the earnings of the older generation arrivals in the US are higher than those of the more recent arrivals between 2015-2014, measuring at 26 USD per hour and 20 USD per hour, respectively.

Table 3.2: Summary Statistics of Anglophone Countries

Characteristics	**N**	**1980-1994, N = 3,968[1]**	**1995-2014, N = 9,030[1]**	**p-value[2]**
Place of College Education	12,998			< 0.001.
Others		1,366 (34%)	3,925 (43%)	
Africa		1,430 (36%)	3,955 (44%)	
US		1,172 (30%)	1,150 (13%)	
Age Arrived	12,998			< 0.001.
0-10		418 (11%)	175 (2.0%)	
11-17		410 (10%)	556 (6.3%)	
18-23		1,007 (25%)	1,399 (16%)	
24-27		870 (22%)	1,362 (15%)	
28-30		482 (12%)	1,188 (13%)	
31-40		690 (17%)	3,013 (34%)	
41-50		89 (2.2%)	1,143 (13%)	
Mean Years in the US	12,998	24 (19, 30)	10 (6, 15)	< 0.001.
Current Age	12,998	48 (41, 55)	41 (34, 48)	< 0.001.
Mean Hourly Wage	12,996	26 (16, 42)	20 (13, 33)	< 0.001.
Country	12,998			< 0.001.
Cameroon		138 (3.5%)	642 (7.1%)	
Gambia		46 (1.2%)	102 (1.1%)	
Ghana		697 (18%)	2,137 (24%)	
Liberia		341 (8.6%)	758 (8.4%)	
Libya		38 (1.0%)	76 (0.8%)	
Nigeria		1,580 (40%)	3,117 (35%)	
Sierra Leone		29 (0.7%)	244 (2.7%)	
South Africa		732 (18%)	1,214 (13%)	

Tanzania		118 (3.0%)	220 (2.4%)	
Uganda		130 (3.3%)	231 (2.6%)	
Zimbabwe		119 (3.0%)	289 (3.2%)	
Marital Status	12,347			< 0.001.
Others		1,834 (50%)	4,091 (47%)	
Intramarriage		758 (20%)	1,364 (16%)	
Intermarriage		1,111 (30%)	3,189 (37%)	
Years of Immigration	12,998			< 0.001.
80-84		1,373 (35%)	0 (0%)	
85-89		1,157 (29%)	0 (0%)	
90-94		1,438 (36%)	0 (0%)	
95-99		0 (0%)	2,725 (30%)	
00-04		0 (0%)	2,934 (32%)	
05-09		0 (0%)	1,861 (21%)	
10-14		0 (0%)	1,510 (17%)	
1 n (%); Median (IQR)				
2 Pearson's Chi-squared test; Wilcoxon rank sum test				

3.8.2 Summary Statistics: non-Anglophone African Immigrants

Table 3 illustrates that the number of college-educated non-Anglophone immigrants decreased from 23% among the older cohorts (1980-1994) to 9.7% among the recent cohorts (1995-2014). The proportion of immigrants who received their college education in Africa remains relatively constant over time. Non-Anglophone African immigrants are less likely to have completed a college education, as will be discussed in subsequent sections.

Like Anglophone immigrants, non-Anglophone African immigrants mostly arrive at ages above 18. The results show that only 20% arrived below the age of 18 between 1980-1994, and 7.1% between 1995-2014. The proportion of arrivals below 18 years old

is decreasing, but the number of immigrants arriving between the ages of 18-29 is similar over time. The real changes are happening in the arrival age composition among immigrants below the age of 18 and after the age of 30.

The average years spent per non-Anglophone immigrants among older arrival cohorts (1980-1994) in the sample is 24 years and 10 years for newer ones (1995-2014) which is the same number of years as what is observed for the Anglophone immigrants discussed earlier.

The sample shows that the earnings of older generation arrivals are higher than those of more recent arrivals between 2015-2014. The older generation arrivals earn 23 USD per hour, while the more recent arrivals earn 16 USD per hour.

Table 3.3: Summary Statistics of non-Anglophone Countries

Characteristics	**N**	**1980-1994, N = 3,144[1]**	**1995-2014, N = 7,816[1]**	**p-value[2]**
Place of College Education	10,960			< 0.001.
Others		1,400 (45%)	4,193 (54%)	
Africa		1,012 (32%)	2,867 (37%)	
US		732 (23%)	756 (9.7%)	
Age Arrived	10,817			< 0.001.
0-10		338 (11%)	129 (1.7%)	
11-17		301 (9.6%)	414 (5.4%)	
18-23		770 (25%)	1,367 (18%)	
24-27		746 (24%)	1,539 (20%)	
28-30		422 (13%)	1,148 (15%))	
31-40		512 (16%)	2,348 (31%)	
41-50		52 (1.7%)	731 (9.5%)	
Mean Years in the US	10,960	24 (18, 29)	10 (6, 15)	< 0.001.
Current Age	10,960	48 (41, 54)	39 (33, 46)	< 0.001.
Mean Hourly Wage	10,958	23 (14, 38)	16 (10, 28)	< 0.001.
Country	10,960			< 0.001.

Algeria		150 (4.8%)	642 360 (4.6%)	
Congo		10 (0.3%)	101 (1.3%)	
Egypt		1,021 (32%)	1,021 (32%)	
Eritrea		245 (7.8%)	265 (3.4%)	
Ethiopia		799 (25%)	2,189 (28%)	
Guinea		53 (1.7%)	140 (1.8%)	
Ivory_Coast		45 (1.4%)	101 (1.3%)	
Morocco		388 (12%)	1,145 (15%)	
Tanzania		118 (3.0%)	220 (2.4%)	
Rwanda		5 (0.2%)	36 (0.5%)	
Senegal		122 (3.9%)	303 (3.9%)	
Somalia		135 (4.3%)	626 (8.0%)	
Sudan		171 (5.4%)	590 (7.5%)	
Marital Status	10,503			< 0.001.
Others		914 (31%)	2,381 (32%)	
Intramarriage		1,189 (40%)	2,336 (31%)	
Intermarriage		865 (29%)	2,818 (37%)	
Years of Immigration	10,960			< 0.001.
80-84		807 (26%)	0 (0%)	
85-89		1,082 (34%)	0 (0%)	
90-94		1,255 (40%)	0 (0%)	
95-99		0 (0%)	2,344 (30%)	
00-04		0 (0%)	2,344 (30%)	
05-09		0 (0%)	1,788 (23%)	
10-14		0 (0%)	1,373 (18%)	

1 n (%); Median (IQR)

2 Pearson's Chi-squared
test; Wilcoxon rank sum
test

3.8.3 Proportion of Place of College Education by Age-of-Arrival: Anglo vs non-Anglo

It is important to understand the proportion of immigrants likely to complete a US college education at later arrival stages. Figure 3.3 shows that arriving at an earlier age does not necessarily imply a higher likelihood of Anglophone African immigrants completing a college education, especially for arrival ages between 0-30. Among non-Anglophone immigrants, the proportion of those who arrived at an early age (0-23) and did not complete a college education is actually higher. These two descriptive graphs underscore the importance of considering that the implications of arriving early may not necessarily result in higher education attainment (or increased wages).

Figure 3.3 illustrates that approximately 9 percent of non-Anglophone African immigrants, who arrive between the ages of 24-27, attain a US college education, compared to about 10 percent among those from Anglophone regions. Similarly, for non-Anglophone immigrants arriving at ages 18-23, a prime age for college attendance, approximately 12 percent complete a US college education, whereas 11 percent of Anglophone immigrants in the same age group achieve this.

In the next section, I will delve into a detailed discussion of the disparities in college attainment between Anglo and non-Anglo immigrants. However, even at this point, we can observe from Figure 3.3 that there is a higher proportion of non-Anglophone immigrants who do not complete or attain less than a college education. Notably, among Anglophone African immigrants, a greater percentage complete a college education than those who do not, as the percentage of individuals falling into the 'no-college' (less than college) category across all arrival ages is less than 50 percent.

Furthermore, Figure 3.3 also reveals that no immigrants who arrived in the US below the age of 17 completed their college education in Africa. Similarly, immigrants who arrived after the age of 28 did not achieve a US college education. While this observation may be influenced by sample characteristics, it is reasonable to assume that the zero proportion of these two categories aforementioned is reasonable. First, it is likely due to the perception that US college education offers higher quality, particularly for individuals who spent their childhood in the US - which means early arrivals are less likely to attend college education in Africa. Additionally, it is improbable for immigrants over the age of 28 to gain admission to start a US college education.

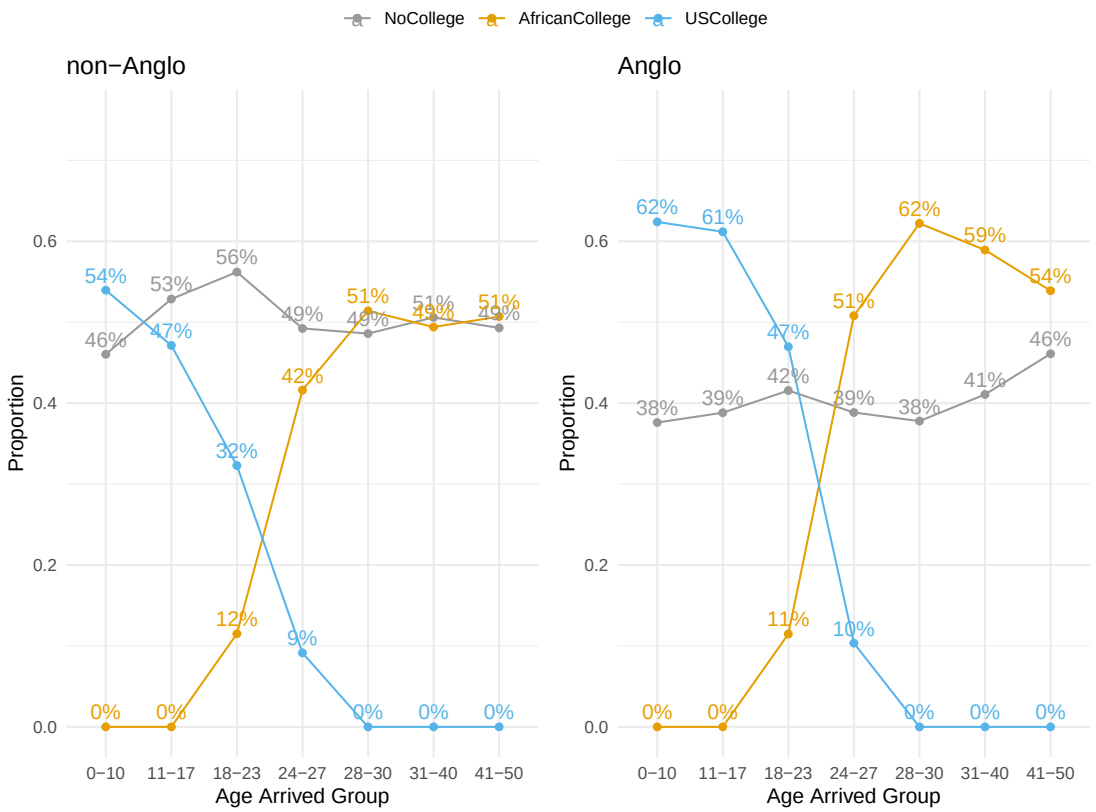

Figure 3.3: Proportion - Place of Education by Age of Arrival (Anglo vs non-Anglo African Immigrants.

The population of interest for broader discussion will be those who arrived between the ages of 18-27 and have completed a college education but may have been perceived as late arrivals compared to those who arrived as children.

3.8.4 The Relative College Attainment and Median Hourly Wages by Country

Figure 4 illustrates that the relationship between language proficiency and college and post-college attainment is similar to the relationship between college and above attainment and earnings. Results show that English-speaking and Anglophone immigrants have higher earnings than non-Anglophone immigrants, with the exception of Egyptian and Ghanaian immigrants. The median wages for immigrants from South Africa, Zimbabwe, Libya, Tanzania, Egypt, Nigeria and Cameroon are above 20 USD per hour. These are all Anglophone countries with the exception of Egypt. On the other hand, the countries with immigrants who earn the lowest hourly wages are Somalia, Sudan, Guinea, and Congo, which are classified as non-Anglophone countries.

In order to better understand the relationship between language proficiency and college attainment, I analyzed the relationship between the mean language proficiency and the proportion of African immigrants with a minimum of a college education. The

gradient of Figure 4 shows a strong positive relationship between mean language proficiency (derived from transforming categorical responses into a linear scale with the same measure) and college/post-college attainment. Firstly, I found that countries with immigrants who have higher English proficiency are more likely to have immigrants who have attained a higher level of college and above degrees.

Secondly, from Figure 5, I observed that there are more immigrants from Anglophone countries at the upper bound of the curve. This suggests that Anglophone immigrants are more likely to be positively selected by higher levels of education than immigrants from non-Anglophone countries.

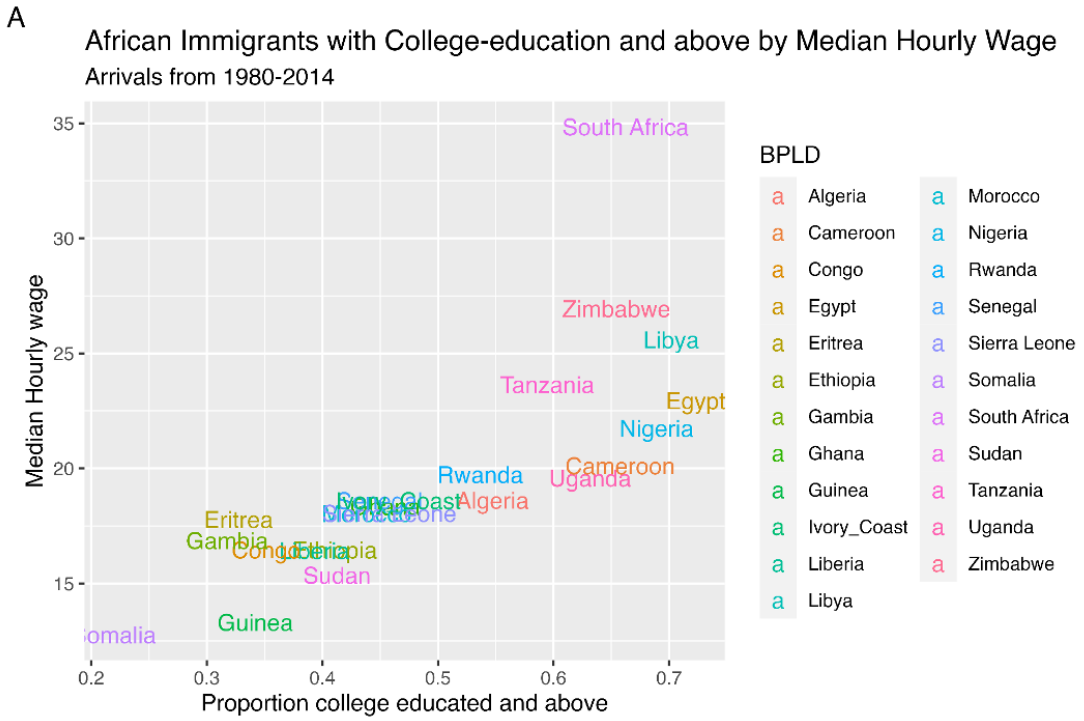

Figure 3.4: African immigrant with college education and above by Median hourly wages

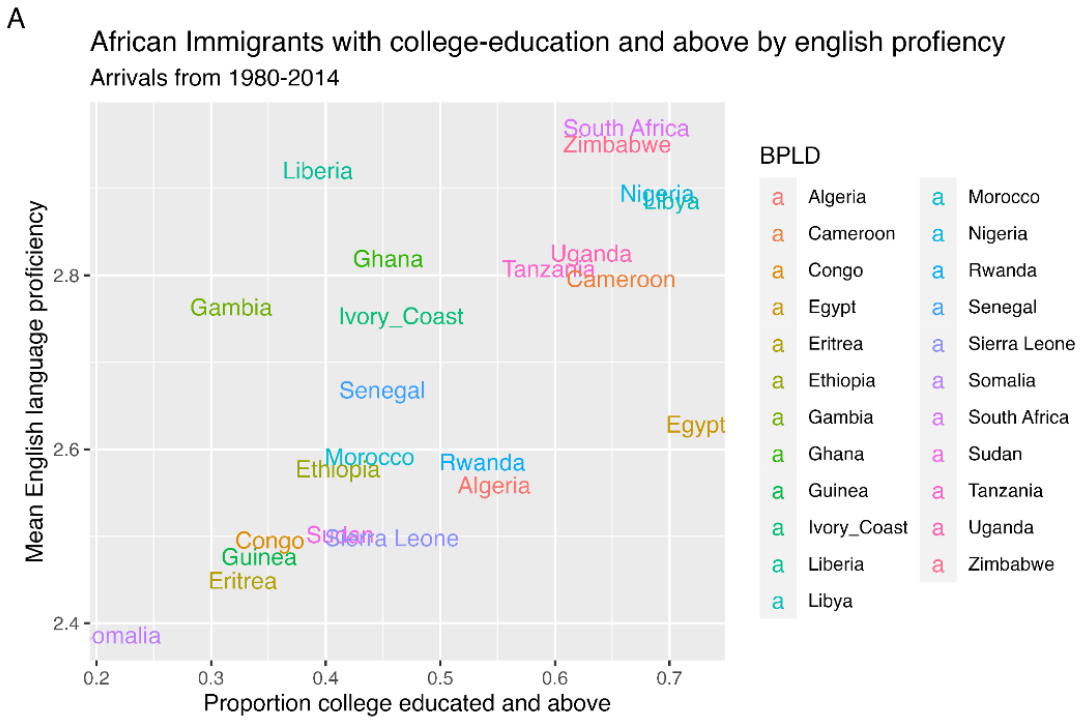

Figure 3.5: African immigrant with college education and above by English proficiency

3.9 Main Findings

3.9.1 Age-of-Arrival Effect and Educational Attainment

As a precursor to the hypothesis testing, which focuses on the place of college education and the pre-migration lingua franca, I discovered that the educational level of African immigrants significantly influences their wages, while the impact of age-of-arrival is relatively weak. This finding forms the foundation for the subsequent predictive models we will discuss. In simpler terms, Figure 3.6 demonstrates that higher levels of education lead to higher earnings for African immigrants, which is not surprising given the strong positive relationship between education and wages. What's intriguing is that among immigrants with the same level of education, there are no significant differences in wages across various arrival ages.

The result suggests that having a degree as opposed to some college or high school (or less) makes a significant difference and matters irrespective of the arrival period or place of education. This provides the basis for the key question of this paper and hypotheses one and two - as to whether college education makes a difference in earnings at different arrival ages- and to further analyze its heterogeneity across different epochs.[1]

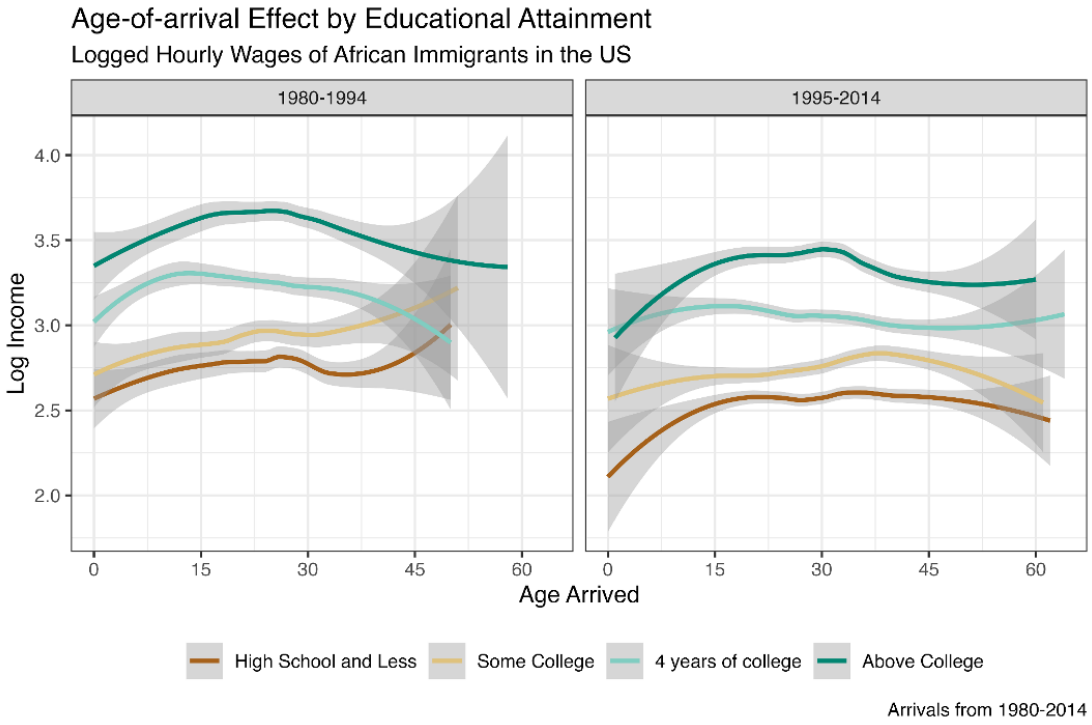

Figure 3.6: Age-of-arrival effect by Educational Attainment

[1]In the predictive model adopted in the next section, I did not include categorical variables for each level of education. This omission was deliberate to prevent collinearity with variables related to a college education. Instead, I incorporated schooling years to account for other forms of education not covered by the categorical variable. Nevertheless, a separate analysis was conducted, and the findings were consistent with the results depicted in Figure **??**. Specifically, the analysis confirmed that higher levels of education lead to increased wages, and this advantage or disadvantage associated with different levels of education remains constant regardless of the age at arrival.

Hypothesis One and Two:

3.9.2 Does Immigrants' Place of College Education Impact the Age-of-Arrival Effect?

In this section, I discuss the finding as it relates to predictive models and the hypothesis discussed in the previous sections. In the preceding section, we determined that the level of education, rather than the age of arrival, significantly influences wages. However, we are yet to ascertain whether the location of education, particularly college education, plays a crucial role, considering that the location of a college education is closely associated with the age of arrival.

I investigate the impact of the place of college education on the relationship between the age of arrival and earnings of African immigrants in the US, taking into account the lingua franca of their origin country. The results presented in Table **??** shed light on the earnings patterns of immigrants based on their age of arrival. I will start with a discussion on pooled African Immigrants (Anglo and non-Anglo) across the two epochs.

Table 3.4: Pooled: Linear Model of Age-of-Arrival Effect on the Earning of African Immigrants in the US that arrived from 1980-2014.

	Model 1:	**Model 2:**
	(1980 - 1994)	**(1995 - 2014)**
Age Arrived	0.011^{***}	-0.001
Region of Origin		
Ref: Non-Anglo	-	-
Anglophone	0.334^{***}	0.202^{***}
	(0.089)	(0.058)
Place of Education		
Ref: No College Education	-	-
Africa	0.095^{***}	0.222^{***}
	(0.030)	(0.018)
US	0.261^{***}	0.343^{***}
	(0.034)	(0.027)
GDP	0.003	0.001
	(0.002)	(0.001)

Intermarriage	0.061^{***}	0.045^{***}
	(0.012)	(0.007)
English Proficiency	0.144^{***}	0.107^{***}
	(0.024)	(0.012)
Schooling Years	0.063^{***}	0.038^{***}
	(0.004)	(0.003)
Constant	-20.526^{***}	-0.511
	(5.140)	(2.619)
Observations	5,822	14,944
R^2	0.241	0.221
Adjusted R^2	0.236	0.219
Residual Std. Error	0.692 (df = 5783)	0.711 (df = 14903)
F Statistic	48.378^{***} (df = 38)	105^{***} (df = 40)

Note: The dependent variable is the logged hourly wages of African immigrants in the US. All models control for the year of immigration (in a 5-year interval), country of birthplace and region of US residence, GDP at the time of migration, Age of Migrants, intermarriage (intra-marriage) and English language proficiency of migrants. $*Note: *p < 0.1; **p < 0.05$.

Before 1995, when immigration to the United States was not primarily motivated by the perceived value of African college education, Table 3.4 illustrates that the significance of arriving at an older age was diminished, with only a slight, yet statistically significant, increase of 0.011 percentage points in earnings observed as arrival ages increased. The result makes it evident that the value of African college education is relatively lower in the era than that of US college education, with figures of 0.095 and 26.1 percentage points (compared to Immigrants with no education), respectively, thus confirming Hypothesis One.

Figure 3.7 visually illustrates that the impact of US college education increases by arrival ages for US college-educated immigrants who arrived before 1995. This supports the notion that a US college education plays a defining role in the emerging trends we observe related to age-of-arrival pre-1995. The effect of receiving a US education by arrival age did not also fall significantly post-1995 and was somewhat consistent till the arrival age of 25.

In the pre-1995 era, African college education was less valuable and factors such as refugee status, family reunification, and employment opportunities played more significant roles in immigration decisions. It is believed that the Immigration and Nationality Act of 1965, passed in the midst of the civil rights movement was mainly to capture family members and increase the number of refugees and asylum seekers in the United which was aimed at replacing the immigration cap before 1965. These were the main drivers

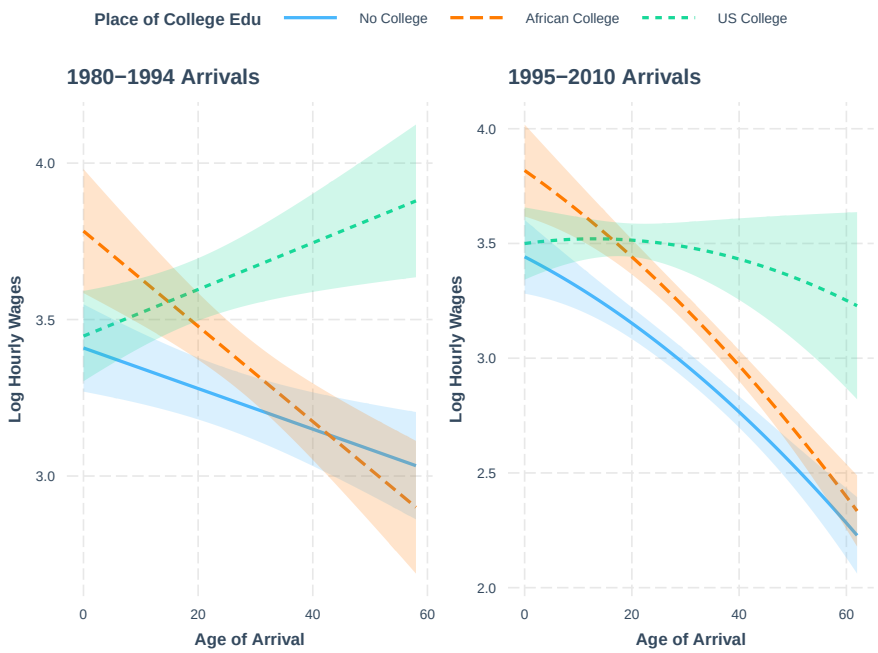

Figure 3.7: Effect of Age of Arrival by Place of College Education on Wages: Two Epochs

of immigration pre-1980 (Massey and Pren, 2012; Abramitzky and Boustan, 2017).

Additionally, immigrants who arrived for reasons other than the value of their African education may have already established connections within the US or received state support if they arrived as refugees, which may reduce the influence of arrival age on earnings. While a US college education is shown to be highly valuable prior to 1995, immigrants who arrived early, who are more likely to arrive for non-education purposes, were likely not significantly different by arrival age, particularly for those who obtained a US college education (Figure 3.7).

In the post-1995 period, when the United States opened up more opportunities for educated immigrants with high levels of education from their home countries, which were also highly valued in the US, I observed that the age-of-arrival effect turned negative, but its strength remained weak. Table 3.4 indicates that the effect of age at arrival was -0.001, while the value of African college education (compared to no education) boosted wages by 22.2 percent. This marks a significant positive shift from the 0.095 observed before 1995. Additionally, US education increased wages by 34.3 percent. These findings align with previous research conducted by Dodoo (1997), who observed a 29.1 percent increase in earnings for male African immigrants with a US degree compared to those without a degree. While these findings partially support Hypothesis Two, it's important to note that the effect is not particularly strong and lacks statistical significance

In this epoch, The focus of immigration during this era was more on whether African immigrants had the required education to school or work in the United States. For example, the Diversity Visa Program, which took effect in 1991, led to a significant increase in nonimmigrant visas such as the H-1B visa for highly skilled African workers in the United States (Jasso 2011; Kollehlon and Eule 2003; Ikubolajeh and Thomas 2012).

Consequently, post-1995, arriving at an earlier age became more important for individuals without a US or African college education.

Both pre and post-1995 findings suggest that the effect of arrival age on earnings is likely to be highly intertwined with the purpose of immigration. The negative wage effect experienced by immigrants who arrive in the US at an older age (as teenagers or young adults) compared to those who arrive as children can potentially be offset by attending a US college or if there is an increase in the value of an African college education. This supports the hypothesis that a US college degree or a valuable African college education plays a significant role in the earnings of African immigrants[1]

Although not presented in the paper, I conducted a robustness check where I omitted the control for the location of college education. The results indicated that, in general, African immigrants in the US tend to have lower earnings compared to younger immigrants, as observed in Table 3.7, which aligns with previous research findings. However, this relationship changes when I consider where immigrants completed their college education. Notably, during the first epoch (1980-1994), when obtaining a US college education carried a higher value than completing a college education in Africa, no significant differences were observed between arrival age groups.

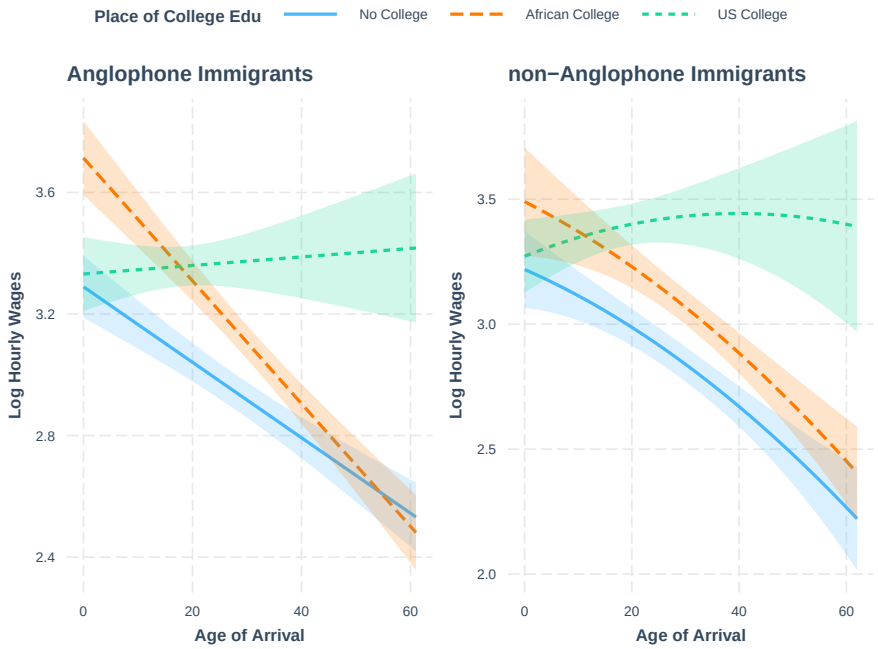

Figure 3.8: Effect of Age of Arrival by Place of College Education on Wages: Anglo vs non-Anglo

Hypothesis Three:

[1]It is important to note that when referring to a college education in this context, it specifically refers to a terminal degree, such as a college or post-college degree.

Table 3.5: Age of Arrival Effect on The Earnings of African Immigrants in the US. 1980-2010. Anglo vs Non-Anglo

	Dependent variable:			
	Logged Hourly Wages			
	(3)	(4)	(5)	(6)
Age Arrived	0.013**	−0.001	0.012*	−0.002
	(0.005)	(0.005)	(0.006)	(0.006)
Place of College Edu				
Ref: No College Edu				
Africa	0.083**	0.194***	0.112**	0.250***
	(0.040)	(0.025)	(0.045)	(0.026)
US	0.240***	0.310***	0.301***	0.392***
	(0.047)	(0.036)	(0.051)	(0.040)
GDP	0.005**	0.0002	−0.0004	0.003
	(0.002)	(0.002)	(0.003)	(0.002)
Intermarriage	0.082***	0.046***	0.025	0.046***
	(0.015)	(0.009)	(0.021)	(0.012)
English Proficiency	0.095**	0.061***	0.159***	0.127***
	(0.039)	(0.021)	(0.031)	(0.015)
Schooling Years	0.064***	0.042***	0.062***	0.034***
	(0.006)	(0.004)	(0.006)	(0.003)
Constant	−20.371***	2.578	−16.063*	−4.500
	(6.710)	(3.576)	(8.479)	(3.850)
Observations	3,256	8,053	2,566	6,891
R^2	0.237	0.219	0.239	0.212
Adjusted R^2	0.231	0.217	0.229	0.209
Residual Std. Error	0.677 (df = 3229)	0.710 (df = 8024)	0.711 (df = 2535)	0.711 (df = 6860)

The dependent variable is the logged hourly wages of African immigrants in the US. Models 3 and 4 represent Anglophone immigrants from two different epochs (1980-1994 and 1995-2010), while Models 5 and 6 represent non-Anglophone immigrants from the same two epochs. All models include controls for the year of immigration (in 5-year intervals), country of birthplace, region of US residence, GDP at the time of migration, age of migrants, intermarriage (intra-marriage), and English language proficiency of migrants. $*Note: *p < 0.1; **p < 0.05$.

3.9.3 Anglophone Africans vs. non-Anglophone Africans

Furthermore, I conducted an analysis to investigate potential earnings differences between immigrants from two distinct origins using a disaggregated dataset (Hypothesis Three). The results from Table 3.7 indicate that Anglophone immigrants earned 33.4 percent more than non-Anglophone immigrants for immigration years between 1980-1994 and 20.2 percent more for immigration years between 1995-2014. The effect sizes are quite high and lay credence to the importance of pre-migration cultural capital such as the destination country's language proficiency in increasing wage potentials.

In Table 3.5, I further examined the effect of age-of-arrival on the wages of Anglo and non-Anglo-African immigrants separately. The results were similar to what was obtained in the combined data: in pre-1995 migration, differences in arrival ages did not have a negative impact on earnings, and older ages may even have had somewhat positive effects. In the post-1995 period, there was a slight or null negative effect of late arrival, but these effects were not statistically significant for both Anglo and non-Anglo African immigrants.

Both Anglo and non-Anglo-African immigrants benefited significantly from a US education, with non-Anglo immigrants experiencing slightly higher benefits. A US education increased wages by 30.1 and 39.2 percent for non-Anglophone African immigrants in both epochs. Additionally, the value of African college education, compared to having no college education, was higher for non-Anglophone African immigrants than for their Anglophone counterparts.

We can infer two conclusions from the findings that Anglophone Africans earn significantly more than non-Anglophone Africans in the US. First, it could be that the penalty between a college degree and a non-college degree holder among Anglophone Africans is very high which encourages most immigrants to have a college education or have further education in the US. Second, chances are that education received by Anglophone Africans before migration is found more valuable in the US than that received by non-Anglophone immigrants.

3.9.4 Robustness: Earnings or Wage-Gap?

The previous discussion has looked at the impact of a US college education on the earnings of immigrants, rather than on the wage gap between immigrants and US-born citizens with the same level of education. This investigates whether the effect of a US college education on the earnings of US-born citizens is similar to that observed for immigrants.

The results indicate that when comparing immigrants with a US degree to those without one, the result from the wage gap is consistent with what was observed with immigrants' wages. This suggests that when immigrants with a college education are compared to US-born citizens with the same level of education and age, the age-of-arrival for immigrants who arrived early before 1995 did not change significantly from those who arrived late.

The main difference that is observed for wage gap between natives and wages is that immigrants without a US degree are able to close the wage gap more than immigrants with a college degree. Therefore, having a US degree does not close the wage gap for immigrants when compared to US-born citizens of the same age and level of education.

The results are consistent with previous findings in the preceding section that after considering the role of a US education, Anglophone African immigrants who arrived in the US at older ages are not affected by the negative impact of arriving much later, driven by the effect of a US education.

Table 3.6: Robustness: Linear Model of Age-of-Arrival Effect on the Wage Gap of African Immigrants in the US that arrived from 1980-2014.

	Model 1: **(1980 - 1994)**	**Model 2:** **(1995 - 2014)**
Age Arrived	$0.01 * **$	$-0.01 * **$
	(0.04)	(0.05)
Place of College Education		
Ref: Below College Education		
Africa	$-0.28 * **$	$-0.22 * **$
	(0.03)	(0.02)
US	$-0.17 * **$	$-0.19 * **$
	(0.03)	(0.03)
Observations	5,790	14,903
R2	0.084	0.096

Note: The dependent variable is the logged wage gap between African immigrants and US-born citizens while controlling for the fixed effect of native-born' age and education. All models include controls for the year of immigration (in 5-year intervals), country of birthplace, region of US residence, GDP at the time of migration, age of migrants, intermarriage (intra-marriage), and English language proficiency of migrants. $*Note: *p < 0.1; **p < 0.05$.

3.10 Discussion

Using 1995 as a cutoff point provides a valuable framework for examining the timing and educational intentions that can impact the outcomes of immigrants in the US. The year

1995 holds particular significance as it follows the implementation of the 1990 Immigration Act and the Diversity Visa Program, which came into effect in 1991. These policies resulted in a substantial increase in nonimmigrant visas, including the H-1B visa, which facilitated the entry of highly skilled African workers into the United States (Jasso 2011; Kollehlon and Eule 2003; Ikubolajeh and Thomas 2012).

Upon analyzing the data, I discovered that prior to 1995, there is no consistent variation in earnings between child and adult immigrants from Anglophone African countries who had obtained a college education in the US.

These findings suggest that the value of college education and the motivations behind immigration poliices can significantly impact the relationship between the age of arrival and economic outcomes, particularly during the period when a US college education held considerably greater value than an African college education. Additional analysis (as depicted in Figure 3.1) reveals that pre-1995, there was either a larger proportion of early arrivals who completed their education in the US or there was no discernible systematic difference between early and teenage arrivals for few Anglophone countries. This pattern is particularly noticeable among immigrants from Anglophone countries such as Nigeria, Sierra Leone, and South Africa. If a significant number of pre-1995 arrivals arrived with the specific intention of pursuing a college education, the timing of their arrival may become less relevant to their potential earnings, as they are still highly likely to complete a college degree in the US.

However, in subsequent years, particularly after 1995, as African education gained greater prominence in the US labour market, it became feasible to discern between older arrivals and early arrivals. The impact of African college education on wages increased from 6 percent for pre-1995 arrivals to 21 percent (in comparison to individuals without the education). [1] The enhanced value attributed to an African college education can be linked to immigrants arriving during their teenage and college years to pursue Master's and post-college degrees, while a minority arrived for employment purposes. This enables a comprehensive distinction between the effects of early and late arrival, a distinction that was not discernible prior to 1995. These findings suggest that when we have accounted for the influence of college education among immigrants from countries where their pre-migration college education holds significance in the US context and where US policies are more friendly in attracting a higher proportion of adult arrivals, the independent adverse effect of late arrivals becomes more pronounced.

Additionally, the findings presented in this paper provide support for the notion that achieving wage parity is contingent upon the dominant language in the country of origin, which could be associated with a higher level of educational attainment in the US after arrival. Non-Anglophone African countries, typically possess lower cultural capital required to integrate into the US such as lower levels of education, exhibit lower proficiency in English, thereby leading to adverse outcomes in their educational and occupational trajectories. This discrepancy may also stem from Anglophone immigrants attaining a higher level of education, as evidenced in this study, thereby surpassing their non-Anglophone counterparts as well as their US counterparts (Dodoo 1997).

[1] Meanwhile, the influence of US college education experienced a marginal rise compared to the pre-1995 period.

3.11 Conclusion

Previous research that focuses on age-at-immigration often demonstrates that earnings reduce as immigrants' arrival age increases and that older immigrants often perform worse than US-born individuals (Alexander and Ward 2018; Hermansen 2017; Schaafsma and Sweetman 2001). Many of these studies compare child arrivals with teenage arrivals, who constitute a disproportionate proportion of new arrivals in the United States. These studies argue that child arrivals have a greater potential for human capital development, as the environment in which children spend their formative years is crucial (Almond et al. 2018; Basu 2018; Hermansen 2017; Lee and Edmonston 2011; Schaafsma and Sweetman 2001), while teenage arrivals and 1.5 generation immigrants may fare worse than child arrivals (Chiswick and DebBurman 2004; Myers et al. 2009). However, the negative slope of the age-of-arrival effect reported in previous literature may also not be as informative when integration strategies are not examined or grouped to capture context-specific meanings (Lee and Edmonston 2011; Myers et al. 2009).

Given that wages may strongly depend on college education, it has been uncertain to what degree acquiring a college education in the US or receiving a highly valued African education contributes to the age-of-arrival effect on wages over time. Furthermore, there has been a lack of comprehensive examination regarding the wage disparities between Anglophone and non-Anglophone African immigrants in the US.

This paper presents three main findings. Firstly, it underscores that the value of college education and the motivations driving immigration policies can significantly influence the relationship between the age-of-arrival effect and the wages of African immigrants. I discovered that during periods when the primary focus was on college-educated immigrants, there was a subtle, non-significant negative age-of-arrival effect. Furthermore, immigrants who obtained a US college education did not experience a decline in wages as they grew older; in fact, there were even slight, but significant, increases in wages for older immigrants who arrived in the United States before 1995.

Secondly, it contributes to the need for contextualizing age-of-arrival in determining what constitutes being "late". Previous research has found that age-of-arrival matters primarily for English language acquisition and to a lesser extent for other socioeconomic variables (Myers et al. 2009). This is further supported by similar findings that indicate that older arrivals from specific African countries perform better (Kollehlon and Eule 2003).

Lastly, anglophone immigrants earn significantly more than non-Anglophone African countries, who generally possess lower levels of education, exhibit lower proficiency in English, and hail from countries where English is not the primary language of instruction. This distinction underscores the importance of exploring premigration experiences that may carry significance within the US context, as well as considering US policies on skilled migration that influence the independent effect of late arrivals.

This paper has two primary limitations. Firstly, the US census lacks specific information about the locations of colleges attended by immigrants. Consequently, a somewhat basic method was employed, utilizing immigrants' ages and their ages of arrival to approximate this missing information. Secondly, acquiring a US college education

is intrinsically linked to the age of arrival, potentially introducing controls for a post-treatment variable into the model. Nevertheless, it remains crucial to account for the independent effect of age of arrival because some individuals arrived early or even later without pursuing any form of education. Conversely, obtaining a US college education may depend on a variety of factors beyond simply arriving early. Immigrants who can attend US colleges span a wide range of arrival ages, from 1 to 27, providing a broader scope for comparison.

I have shown that older African arrivals can have similar outcomes to early arrivals and that earning a US degree is an important assimilation strategy for closing the wage gap. The question of what can be considered as being "late" has been largely addressed. However, three factors should be considered more critically: (1) whether immigrants received a specific type of US education that is transferable in the US labour market, (2) the extent to which the home-country education is transferable in the US labour market, and (3) the extent to which immigrants can speak English affect other integration outcomes. Immigrants who are able to mitigate these shortcomings should not be considered "late" arrivals.

3.12 References

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