

The Impact of Restrictive Migration Policy on Housing Outcomes: evidence from the Windrush generation of immigrants in Britain

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1.0 INTRODUCTION AND BACKGROUND

1.1 Background

Migration policy is the underlying mechanism behind the creation, sustenance and alteration of short and long-run migration patterns. They directly and indirectly define the socio-economic, socio-cultural and demographic characteristics of immigrants (Ejermo and Zheng, 2018), thus immigration waves are conventionally associated with migration policy era. Migration policy is usually categorised as either restrictive or liberalized and there is yet to be a consensus on which of these categories best minimizes the cost, and maximises the benefit of migration; thus, intensifying debates from scholars, policy makers, commentators, and the citizenry. The debate surrounding the Brexit vote in Britain¹ for instance is further evidence of the diversity in opinion and views about migration policy effects (The Migration Observatory, 2016a and 2016b).

Restrictive immigration policies have attracted both positive and negative sentiments, and the perceived costs and benefits appear to be the key areas of contention. For instance, some scholars (DeNew and Zimmermann, 1994; Zimmermann, 1995; Huber and Bock-Schappenlwein, 2014) posit that failing to have immigration restrictions may lead to an influx of low-skilled labour migrants, labour over supply, unemployment, lowering of wages, and in some cases, creating social liabilities to the government, particularly in countries with strong welfare systems; while other scholars (Drinkwater et al, 2003; Partington, 2019) suggest that immigration restriction reduces labour mobility and economic growth particularly in areas of skill shortage. These arguments suggest that the introduction of immigration restrictions may alter the socio-economic, socio-cultural and demographic pattern of immigrant, and by effect immigration waves.

The impact of migration policy on the labour market, capital movement, trade, innovation, transportation, information technology, economic growth and development have been extensively subjected to empirical research², however, there appears to be an almost non-existent empirical contribution to housing and urban economics. This paper attempts to extend the frontiers of this debate to the housing market by linking migration policy systems, particularly restrictive immigration policies to housing outcomes. We explore this

¹ The UK referendum on EU membership in June 2016 which led to majority of the UK population voting to leave the EU.

² See Rosso, Reinzo and Portes, 2012; Ejermo and Zheng 2018

link for two key reasons: first because housing is a key element of a Migrant's voyage (Oladiran Nanda and Milcheva 2019) regardless of the reason for migration, country of origin or other differences, we expect migration policy to also have housing and urban footprints; second, several scholars (such as Kuebler and Rugh, 2013; Gyourko and Linnemann, 1999; Hall and Greenman, 2013; Painter et al. 2001; Nygaard, 2011; Borjas 2002; Zorlu et al. 2014; Skifter Andersen et al. 2016) link socio-economic, socio-cultural and demographic patterns to housing outcomes, and with the fundamental role of migration policy in determining the socio-economic and demographic patterns of immigrants, it can be inferred that housing outcomes of immigrants may be linked directly or indirectly to the migration policy system that was in place when immigration occurred.

This paper therefore aims to provide empirical evidence of the link between restrictive migration policy and housing patterns using data from first generation immigrants in Britain. It specifically analyses the impact of the introduction of immigration restriction for Commonwealth citizens on their housing tenure patterns. Developing this empirical link will improve insight on the social and economic benefits and costs associated with restrictive migration policy.

1.2 Scope and Limitation

Defining the scope of immigration research is important because immigration and its effects are different in different countries based on the peculiar factors associated with the receiving country (Ejemo and Zheng 2018). For instance, the countries of the EU, despite having very similar immigration laws differ by their year of accession to the EU and different conditions of immigration for non-EU immigrants. Furthermore, different countries have different migration history and geographical context which create a variation in the dominant countries' origin of immigrants³.

The data and empirical components of this research focus on Britain. Britain's unique immigration history, having experienced both restrictive and liberalised migration policy changes, as well as the current Brexit (which is expected to introduce immigration restriction to EU citizen who hitherto enjoyed liberalized immigration) provides a unique opportunity for a comparative analysis. Estimating the impact of the previous migration restriction for Commonwealth citizens on housing tenure will enable similar analysis for post-Brexit immigrants in the long and short-run. Britain also shares some similarities with OECD countries, and like the other OECD countries, it is also a key global immigrant destination which exerts strong pull forces because of its stable economic and political environment, strong educational system, financial system and an advanced labour market, thus the findings in this paper may be extended to other OECD countries.

³ Dominant immigrant countries of origin in Britain are India, Poland and Pakistan; while Australia are UK, New Zealand and China. Immigrants in Canada are mainly drawn from the UK, China and India; while US immigrants are mainly from Mexico, India and the Philippines (*United Nations Population Division, 2015; Pew Research Centre, 2015.*)

This paper also maintains the definition of the term “immigrant” as individuals living in a country different from where they were born as defined in Oladiran et al. (2019). Furthermore, the empirical analysis particularly focuses on housing tenure outcomes to enhance precision in modelling, interpretation, contextualization and applicability. Using housing tenure as a proxy for housing outcomes in general is appropriate because of the association of individuals’ housing tenure with the socio-economic status, integration, social transition and mobility. In analyzing housing tenure outcomes, we make an extensive comparison of private housing (homeownership and rental) and public housing outcomes.

The key limitation in this paper relates to the data. Despite using a rich dataset (United Kingdom Longitudinal Survey data), the sample size reduces drastically when it is trimmed down to the years before and after the migration restriction for Commonwealth citizens. Thus, the sample size vis-à-vis the variables required for the most appropriate technique create a major challenge; this will be further discussed in the data and methodology section. Despite these limitations however, this paper provides the first documented empirical attempt to link migration policy and housing tenure outcomes (and indeed housing outcomes in general), thus a novelty.

2.0 RELEVANT LITERATURE

2.1 Conceptual and Theoretical Framework

The impact of immigration has attracted scholarly contribution over the last half century, however, the strand of literature relating to the role of migration policy in creating immigration waves has been rather thin, but now emerging and gaining momentum. Studies such as (Ejero and Zheng, 2018; Dustman, Nickell and Saleheen, 2017) suggest that migration policy has an impact on technology and innovation, social integration, labour market outcomes, economic growth and development.

While there is vast amount of literature on the general effects of immigration on housing (Oladiran et al. 2019), research on the impact of migration policy changes is yet to extended to housing, thus no direct conceptual link can be referenced. The impact of migration policy changes on housing may however be theoretically linked to the terms of the immigration policy, the waves of immigrants emerging from the migration policy changes, and the different socio-economic, socio-cultural and demographic characteristics of immigrants associated with the immigration wave. It is therefore important to begin by reviewing scholarly perspectives on the merits and demerits of restrictive migration policy systems, the potential immigrant waves created, and the socio-economic and demographic characteristics of the immigrants; and to further link these potential characteristics to housing tenure patterns.

2.2 Migration Policy Classification

Migration economists directly or indirectly classify migration policy as restrictive or liberal, thus classical and contemporary literature and debates (such as Sjaastad, 1962; Bianchi, 2013; Ejero and Zheng, 2018; Partington, 2019) are typically along these lines. This implies that migration policy changes either liberalise already existing immigration conditions, or further restrict them. In some rare instances though, some policies cannot be distinctly classified as totally restrictive or totally liberal. It is also not unusual to have both liberalised and restrictive migration policies operating concurrently in the same country.

The impact of migration policy changes is typically dependent on an individual's nationality or citizenship (Borjas, 1987; Nickell and Salehen, 2017). For instance, the liberalisation of immigration for Commonwealth citizens⁴ in Britain in 1948 implied that only citizens of Commonwealth countries could immigrate to Britain without restriction, while restrictions were in place for citizens of non-Commonwealth countries in the same period. This is particularly important for identifying the nationalities that are affected by the policy changes, and those that the policy changes do not apply to. This distinction is fundamental in identifying counterfactuals for treatment effects. Thus, unless restrictive policies apply to all categories of immigrants, there is the need to analyse the impact of the policy in the context of the nationalities that are affected, and to further compare these effects to the immigrant cohort that are not affected by the policy changes.

The impact of migration policy changes on immigration waves and patterns is still ambiguous and non-convergent in literature (Rosso Reinzo and Portes, 2012), and a vast proportion of scholarly work in this regard focus on the labour market and economic growth. Studies such as (DeNew and Zimmermann, 1994; Card, 1990; Hunt, 1992; Borjas, 1995; 1999) find that migration policy generally has minimal, and in some cases insignificantly negative effects on the labour market. Barro and Sala-i-Martin (1992) however find that there are significant effects of migration policy on economic growth. These studies however fail to account for the migration policy era that these assertions are associated with.

Migration policies have different effects in the self-selection of immigration (Drinkwater et al., 2003) and this may be because immigration decisions are usually based on the perceived migration benefits and cost. Scholars have established that the actual benefit derived from changes to migration policy may be linked to the pull forces exerted by the destination county. For instance, the welfare system, government intervention in the form of labour subsidies, and higher wages in the destination country may influence immigration

⁴ Citizens of former and present British colonies which are listed by the Commonwealth (2018): Botswana, Cameroon, Gambia, Ghana, Kenya, Kingdom of eSwatini, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone, South Africa, Uganda, United Republic of Tanzania, Zambia, Bangladesh, Brunei Darussalam, India, Malaysia, Pakistan, Singapore, Sri Lanka, Antigua and Barbuda, Bahamas, The Barbados, Belize, Canada, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St Kitts and Nevis, St Vincent and The Grenadines, Trinidad and Tobago, Cyprus, Malta, Australia, Fiji, Kiribati, Nauru, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

decisions differently from countries that do not have similar benefits (Ghatak, Levine and Wheatley-Price, 1996; Friedberg and Hunt, 1995).

2.3 Migration Restriction

Restrictive migration policies typically aim to limit the immigration of individuals of certain nationalities based on certain terms and conditions. In some cases, restrictive policies are expanded to cover a group of individuals who were previously operating in a liberalized policy system (such as post-Brexit for EU citizens); and in other cases, restrictive policies introduce or increase immigration conditions and requirements for certain categories of immigrants that were already conditioned to a restrictive migration policy system. The latter may include the introduction or increase in financial conditions for economic immigrants (such as introduction and increase in the income threshold and skillset for tier 2 visa migrants in Britain); redefinition of relationships for social migrants (such as the Immigration Act of 1968 in Britain which restricted the definition of “family member” to nuclear family members below 18 years); or additional conditions for asylum seekers.

Restrictions to immigration is theoretically designed to create a mechanism for border control and effective selection of immigrants who can boost the receiving country’s economy either by their skills, expertise, or financial endowment, thus creating a breed of “high-grade immigrants” typically of high (or mid) socio-economic status. Economic immigrants under restrictive policy systems must typically meet certain educational or technical standards and their income must be above a set threshold. Thus, individuals who migrate under restrictive policy systems are expected to be of higher socio-economic status and generally less likely to rely on public support. Comparing restrictive migration policy objectives and empirical evidence of its performance is therefore a worthy consideration.

It is important to point out that the restrictive migration policy objective of creating a breed of “high-grade immigrants” may however only apply to economic migrants and may not extend to political migrants (such as asylum seekers) and social immigrants (migration based on family ties) because it is more difficult to create restrictions based on skill, income and financial endowment for political and social migrants due to the nature of those categories. For instance, an asylum seeker or a social migrant seeking to be reunited with his/her spouse will most likely not be asked to meet educational and skill conditions to be admitted into the country. It may therefore be necessary to compare sub-samples of immigrant categories (economic, political, social and environmental) to observe if policy effects are different for the different sub-samples.

Empirical evidence on restrictive migration effects is generally mixed. Some have found the expected benefits, yet others have found no impact or sometimes negative effects. For instance, Abrahámová (2007) and Rodrik (2011) provide evidence that restrictive polices reduce public cost, provide border controls,

promote equality, enhance planning, improve social integration, protect the labour force, maintain wages, and control unemployment. Kato and Sparber (2013), Chen (2006), Mayda (2010) and Partington (2019) however reveal that restrictive migration policies may have negative footprints which include discouragement of high-ability international students from pursuing their educational ambition in the country, positive self-selection for student migrants, worsening skill composition of immigrants, skill shortage and discouragement of economic migrants such as students and skilled workers who are seeking better opportunities.

Restrictive immigration often increases the cost of migration. This cost may be financial such as transportation cost, cost of medical test and immunisation, information fee, immigration fee, accommodation; or non-financial such as job search, social network (leaving family and friends behind), learning, language and cultural adaptation (McKenzie and Rapoport, 2010). According to Borjas (1987), migration cost is positively correlated with skill level and economic migrants will move to countries with higher wages than their present country of residence. The research further posits that positive selection (immigrants drawn from upper income class) occurs if the correlation between the position in the skill distribution to income distribution in the country of origin and destination country are high and income distribution at the destination country are higher; while negative selection (immigrants drawn from lower income class) is the case where correlation is high, but the distribution of income is lower than that in the destination country.

2.4 Impact of Migration Policy on Housing

Scholarly contribution relating to migration policy preferences have focused on the labour market, education, trade, economic growth and development, with a conspicuous absence of the housing market impact. Advancement has been recorded in the immigration effects on housing outcomes in general, however, the role of migration policy impact on the housing market remains unexploited. Saiz (2007 and 2003) make an important contribution by linking immigration shocks to rents and house price. However, these studies focus more on immigration waves and shocks rather than policy impact. While the papers fulfil their core aim of linking the influx of immigrants to housing demand, rent and house prices, they do not adequately articulate the impact of the policy change that was responsible for these immigration shocks.

Given this discussion, it is surprising that there is no documented evidence of any study that directly examines the impact of migration policy changes on housing tenure, spatial patterns, and mobility patterns of immigrants. Housing outcomes are theoretically linked to socio-economic factors such as income, labour market conditions, educational levels and skills (Kuebler and Rugh, 2013; Gyorko and Linneman, 1999;

Ihlanfeldt, 1986; Rosenthan, Duca and Gabriel 1991; Coulson, 1999; Hall and Greenman, 2013; Painter et al, 2001; Nygaard, 2011). Having established in the previous section that immigration policies play a vital role in determining the aggregate socio-economic and demographic composition of immigrants in a particular country, it is logical to infer that the migration policy system in place may further influence the housing outcomes of immigrants. Specifically, the policy may directly or indirectly influence an immigrant's propensity to rent, own or to be in public housing.

If the restrictive policy system succeeds in creating a breed of "high-grade immigrants" (as established in the previous section), it is expected that immigrants under this system would have a higher propensity to own than to rent (in the long-run), and more fundamentally, to be in private housing compared to public housing. This suggests that individuals who migrated under restrictive policy systems should on aggregate incur less housing-related public cost. Furthermore, if immigrants in a restrictive policy system have a higher propensity for homeownership, they make a significant positive contribution to the economy of the receiving country through fees, stamp duty and mortgage interest payments.

2.5 Migration Policy Evolution in Britain (1948 to 1972)

According to Abrahámová (2007), the desperation of the British government to meet the acute infrastructure and labour inadequacy after the Second World War II led it to extend an invitation to citizens of the Commonwealth⁵ and this created an unprecedented wave of immigrants from the British colonies- the "Windrush generation"⁶. The British Nationality Act of 1948 liberalised immigration by providing unrestricted entry and stay in Britain for Commonwealth citizens. This coincided with the United States McCarran-Walter Immigrant Act of 1952 which restricted West Indians from being eligible to settle in the US (Sked, 1993), hence West Indian immigrants arrived Britain in search of jobs. In addition to the West Indians, immigrants also trooped in from British colonies in Asia and Africa. According to Solomons (1989), about 70,000 to 100,000 Irish immigrants also arrived Britain within the decade.

The Commonwealth immigration wave was characterised by severe integration challenges, particularly with racial and ethnic differences of the immigrants. Abrahámová (2007) and Hampshire (2005) reveal that what started as economic migration become social migration with family members also migrating. This increased pressure on infrastructure, public services and public funds leading to protest and social unrest by the indigenous British citizens. An increase in the unemployment rate at this time also exacerbated these challenges. The debates surrounding the economic and social cost and benefits of the Commonwealth did not yield any consensus, and for political reasons, particularly because Britain was the head of the

⁵ Former and present British Colonies

⁶ The Windrush was a former troopship called the SS Empire Windrush that docked at Tilbury in London on 22 June 1948 bringing several hundreds of immigrants from the Caribbean and this is perceived as the official period of mass immigration

Commonwealth, it was difficult to halt the liberalised migration system in place. The government thus opted to take indirect measures through administrative channels which put pressure on colonial governments to limit passport issuance, tighten proof of identification for those who arrived in Britain, and raise the price for low fare transatlantic transportation.

By the mid-1950s, immigration peaked, with approximately 30,000 West Indies moving to Britain. Additionally, there was an increase in unemployment benefits and national assistance, drug trafficking, illicit drinking and prostitution (Spencer 1997). By the late 1950s, the situation had gotten worse, with immigrants increasingly living in deprived areas of squalor, poor housing conditions and high crime; and more immigrants relying on public housing and welfare benefits at huge public expense. The racial prejudice, violence and civil unrest increased, particularly, the two weeks of civil unrest in Nottingham in August 1958, followed by a large-scale rioting week in Notting Hill are examples of the resentment that immigration had caused. These civil unrests, couple with the enormous public debate led to the introduction of immigration restrictions through the Commonwealth Immigration Act of 1962 to end liberalised immigration for Commonwealth citizens. This however created anticipatory behaviour as there was an upsurge in the number of immigrants to Britain who were attempting to beat the legislation moving into Britain⁷.

The Commonwealth Immigration Act of 1962 was the British government's first step to introduce immigration restrictions (Hansen, 2007). It was first introduced in the Queen's speech on 31st October 1961, received Royal Assent on 18th April 1962, and became law on 1st July 1962. While these restrictions were not absolute, they reduced the rate of immigration from the Commonwealth. The restriction in this Act mainly applied to intending immigrants, thus maintaining the rights of immigrants who were already in Britain. Under this new Act, categories of Commonwealth citizens that were able to enter Britain were limited to holders of employment vouchers issued by the Ministry of Labour, students, members of the armed forces, and entrants who could support themselves and dependent without recourse to working. Furthermore, the Act established a new employment voucher scheme, issuing vouchers (similar to visas) to individuals with specific job from employers, those with skills or training useful or in short supply in Britain, and workers without specific skills or job offers⁸. Based on the conceptual framework developed earlier, it is expected that immigrants from the Commonwealth after the enactment of the 1962 Immigration Act should be of higher socio-economic status compared to the immigrants before the enactment of the Act.

⁷ . The threat of imminent restriction made migrant rush to Britain and this led to a sudden increase in immigration in the year preceding the legislation, with the new Commonwealth immigration increasing from 21,550 in 1959 to 58,300 in 1960 and as much as 125,400 in 1961. The number of immigrants in 1960 and 1961 outnumbered the previous five years combined (Hampshire 2005). Spencer (1997) suggests that there were fears that the new legislation would prevent family reunification, particularly wives and children, several individuals who were already in the UK decided to beat-the-ban rush hence an increase in number of women and children in the months before the bill was passed

⁸The third category was discontinued in 1964

Most of the restrictions introduced were applicable to economic migrants, hence new immigrants exploited the family reunification route (Spencer, 1997), reducing the potency of the policy. According to Hayter (2001), 90% of the Commonwealth immigrants to Britain between 1962 and 1965 were dependents. Despite the Act not significantly reducing the immigration to the levels it had intended, it remains a major reference point, because it formed the basis for future restrictive migration policy in Britain.

The government in 1964 acknowledged the need to maintain some level of restrictions on immigration to maintain the ability to absorb the immigrants and secure themselves and their dependents. A White Paper in 1965 proposed a quota system for employment vouchers (Hampshire, 2005)⁹, discontinuing the unskilled category of labour immigrants, health checks for new immigrants and increase in regulations for students, dependents and visitors. The White Paper re-defined “dependent” to now exclude nephews, cousins, or children over 16 years (this definition was vague in the Commonwealth Act of 1962)¹⁰. However, the Kenyan Africanisation policies created further imbalance, with about 80,000 Kenyan Asians migrating to Britain, creating similar challenges that occurred in the past.

The Commonwealth Immigration Act of 1968 created further amendments to the 1962 Act. It was passed into law on 1st March 1968. This Act introduced a distinction between Commonwealth citizens who were belonging citizens (those with some identifiable ancestors in Britain), and non-belonging citizens (those who did not). According to Abrahámová (2017), this was a subtle way of granting superior rights to immigrants from countries with similar pull factors such as Australia, Canada and New Zealand who would easily fulfil the conditions of having ancestors of British affinity, while excluding new-generation Commonwealth citizens from Asia Africa, and the Caribbean who were unlikely to have such affinity as their relationship with Britain was still younger. It may therefore be worthy to create sub-samples of immigrants from the “belonging” Commonwealth countries and immigrants from “non-belonging” Commonwealth countries to see if any differences exist in their housing outcomes, despite being subjected to the same policy changes with different application.

The partial restrictions introduced in 1968 also failed to fully achieve its objectives, hence the British government decided to eliminate any preference for Commonwealth citizens. The Immigrants Act of 1971 made permanently discontinued the distinction between Commonwealth and non-Commonwealth immigrants. This Act however maintained the special affiliation with the Republic of Ireland together with the Channel Islands, Isle of Man and British Islands. This became the most significant immigration restriction and thus marked the end of the Commonwealth or Windrush era of immigration in Britain.

⁹ Decreasing the number of skilled vouchers from 20,800 to 8,500 annually

¹⁰ This vagueness created room for abuse- particularly checked the abuse of the Commonwealth Immigrants Act of 1962 which originally was meant to admit wives and children age under 16, but there were cases where children up to 18 years were admitted and other far relatives other than parents or fiancées (Spencer 135).

The three key immigration policy restrictions in 1962, 1968 and 1971 have not been previously empirically analysed. It may thus be worthy to test each of these periods to observe if they had the expected outcome and if their effects differ from each other. Analysing the impact of these policies is particularly valuable considering that Brexit also seeks to introduce immigration restrictions to EU citizens. Thus, understanding how the changes in the key policy periods performed will aid the analysis of the impact of Brexit on housing.

The 1948 to 1972 immigration phase in Britain is key in defining Britain's immigration history and present outlook. This chronology is also vital for the development of an empirical framework for this research and will aid methodological decisions such as the identification strategy, definition of treatment and control groups, and other robustness checks.

2.6 Summary of Review

In this section, it has been established that the initial liberalisation (and subsequent restriction) of Commonwealth immigration has create different waves of immigrants (socio-economically and demographically). It has also been established that socio-economic and demographic factors influence housing outcomes. It is therefore logical to explore the possibility of a link between migration policy systems and housing outcomes. Migration policy impact has hardly been explored in the British context, particularly in relation to housing outcomes.

The review further reveals that the unique history of Britain migration policy changes makes it an experimental factory of some sort on the impact of migration policy changes. Thus, this research will be making novelty contributions by providing empirical evidence of the impact of these immigration changes on the waves of immigrants and by extension, the housing outcomes of immigrants. This will be a worthy scholarly contribution to both housing and migration economics. Additionally, these perspectives will be significant contributions to the British migration and housing contexts, in the light of Brexit.

Based on the review, it is expected that the restrictions introduced for Commonwealth citizens in 1962, 1968 and 1971 should create a cohort of "high-grade immigrants" compared to the cohort of immigrants before the laws were enacted. If this proposition is valid, each subsequent restriction after the first policy change in 1962 should have stronger effects. The empirical sections will therefore focus on estimating the effects of the restrictions introduced in the 1962, 1968 and 1971 immigration laws by adopting various quantitative estimation techniques.

3.0 DATA, METHODOLOGY and RESULTS

3.1 Empirical Framework

We adopt an identification strategy using variations in the aggregate housing tenure outcomes of the Windrush generation of migrants to Britain which may have been induced by the introduction of the Commonwealth Immigration Act of 1962, the Commonwealth Immigration Act of 1968, and the Immigration Act of 1971 as a quasi-experiment to examine the impact of migration policy changes on housing outcomes. Each of these policy changes created new immigration restrictions to the citizen of the same countries thus an ideal experimental scenario for examining the effects of more restrictions on immigrants of a similar origin.

We take an approach similar to Draca, Machin and Reenen (2011) to identify the policy change effects by identifying immigrant cohorts that that were affected by the introduction of immigration restriction, and compare their aggregate housing tenure outcomes with other immigrants that were not affected. Those affected by these policy changes were mainly citizens of Commonwealth countries that migrated after the immigration restrictions were introduced (for instance, those affected by the Commonwealth Immigration Act of 1962 are those that migrated after 1962).

There are, however different categories of immigrants that were not affected by the policy changes based on their nationality and their year of immigration. The restrictions introduced did not apply to citizens of non-Commonwealth countries, hence, while we expect that the introduction of restrictions should affect the socio-economic and demographic composition of Commonwealth immigrants, and by extension, their aggregate housing outcomes, we expect that there should be no effects observed for non-Commonwealth citizens. Furthermore, the restrictions only affected immigrants that arrived Britain after the restrictions were introduced, hence those that were Britain before the introduction of the policy were not affected. Thus, while we expect that the 1962 restriction for instance will have no effect on the socio-economic and demographic composition of Commonwealth immigrants who migrated before 1962, and by extension, their aggregate housing outcomes, we expect the restrictions to redefine the socio-economic and demographic pattern of Commonwealth immigrants that arrived after the restrictions were introduced.

Our modelling begins with the Commonwealth Immigration Act of 1962 and is then replicated to capture the restrictions of 1968 and 1971. This quasi-experimental setting enables us to compare the aggregate housing tenure outcomes of the cohort of Commonwealth immigrants (treatment countries) before and after the introduction of each restriction, and further compare the results to the cohort of non-Commonwealth immigrant (control countries) before and after the introduction of each restriction. For ease of explication, we create a discrete treatment indicator (RTW^{pre}) for the period before the 1962 restriction, a discrete

indicator (RTW^{post}) for the period after the 1962 Act, and another indicator for Commonwealth immigrants (CW). We then go further to create four groups of treatment indicators.

The first treatment indicator accounts for variations before the policy introduction and the variable can be defined as $T_1=1$ for Commonwealth immigrants before the 1962 Act (where $RTW^{pre}=1$, and $CW=1$); and $T_1=0$ for non-Commonwealth immigrants before the 1962 Act (where $RTW^{pre}=1$, and $CW \neq 1$); while the second treatment indicator accounts for variations after the policy introduction and the variable can be defined as $T_2=1$ for Commonwealth immigrants after the 1962 Act (where $RTW^{post}=1$, and $CW=1$); and $T_2=0$ for non-Commonwealth immigrants after the 1962 Act (where $RTW^{post}=1$, and $CW \neq 1$). The third treatment indicator accounts for variations before and after the policy introduction for Commonwealth immigrants and can be defined as $T_3=1$ for Commonwealth immigrants after the 1962 Act (where $RTW^{post}=1$, and $CW=1$); and $T_3=0$ for Commonwealth immigrants after the 1962 Act (where $RTW^{pre}=1$, and $CW=1$); while the fourth treatment indicator accounts for variations before and after the policy introduction for non-Commonwealth immigrants and can be defined as $T_4=1$ for non-Commonwealth immigrants after the 1962 Act (where $RTW^{post}=1$, and $CW \neq 1$); and $T_4=0$ for non-Commonwealth immigrants after the 1962 Act (where $RTW^{pre}=1$, and $CW \neq 1$).

According to Draca et al. (2011), the main challenges associated with non-experimental evaluation of treatment effects is whether the comparison group constitutes a valid counterfactual. The key conditions are that there are common trend and stable composition of the two groups (Richard Blundell et al. 2004), and our analysis will be guided by these conditions by carrying out pseudo-experiments and examining pre-policy trends. Our four sets of treatment indicators therefore offer a unique opportunity to explore alternative counterfactuals and compare their outcomes. For instance, we are able to compare Commonwealth immigrants and non-Commonwealth citizens before the restriction, and also compare Commonwealth and non-Commonwealth immigrants after the restriction. We are further able to compare the pre and post- policy effects for Commonwealth immigrants, as well as the pre and post-policy effects for non-Commonwealth immigrants.

3.2 Data

Based on our research question and empirical strategy, certain key variables (which have been discussed in previous sections) are required to explore various econometric techniques. These include housing tenure outcomes (ownership, rental and public housing), immigrants' year of entry (to identify the policy system in place when they immigrated), and their countries of origin (to identify the application of the policy to them when they arrived). The BHPS (British Household Panel Survey) and UKLS (United Kingdom Longitudinal Survey) datasets are best suited for the nature of our analysis. The combined dataset contain data from individuals and households in Britain spanning from 1991 to 2017, and various components have been used

by several scholars (such as Benito, 2009; Koblyakova, Hutchison and Tiwari, 2014; Tumen and Zeydanli, 2014) to model pathways of individuals, households and Oladiran et al. (2019) particularly use this dataset to model the housing tenure outcomes of immigrants in the UK.

Recently, an Immigration Ethnic and Minority Boost (IEMB) was also introduced in the dataset to increase the representation of immigrants and ethnic minorities in the UK. It thus captures a variety of individual, household, socio-economic, demographic and locational factors. Additionally, it contains key information required for our research including housing tenure outcomes, immigrant's year of entry into the UK, age at migration, and their country of origin. While these information are valuable, they are however not reported by all immigrants, thus the challenge of a thin sample size, particularly when we restrict the sample to the periods around the policy change.

We initially attempted to utilise the variables used to build the models in Oladiran et al. (2019). However, as stated in the previous sub-section, the sample size constraint prevents us from making use of all the variables. For the purpose of this research, we utilise the available data by focusing on the key variables of interest- housing tenure, year of entry, and country of origin, and control for a few other factors.

3.3 Variable Lists, Summary Statistics, Modelling Strategy and Results

The summary statistics will be presented based on the policy period that is being analysed. We experiment with various time periods before and after each policy implementation. Specifically, we explore the use of 3 years and 5 years (before and after the policy) in order to reduce the bias that may be caused by the migration lifecycle of the immigrants. While this does not totally eradicate the migration lifecycle effect, it reduces it to a minimum. Furthermore, the immigrants that arrived in the 1960s will be at the latter stages of their migration lifecycle where the migration lifecycle effect begins to wane.

3.3.1 The Period of the Commonwealth Immigration Act of 1962

The first quasi-experiment will be based on the three-year immigration policy window (between 1959 and 1964), and Table 1 Shows the summary statistics of immigrants that migrated within the three years before and three years after the policy enactment.

Table 1: Summary Statistics

Variable	Variable name	Variable Description	N	Mean	SD
Homeownership	Homeownership	Binary variable 1=Homeownership; 0=non-own (indicating if the individual owns or does not own)	1020	0.742	0.438
Treatment Indicators	Pre/Post 1962 Policy	Binary variable: 1=if immigrated post policy (1962 to 1964); 0=if immigrated pre-policy (1959-1961)	170	2.402	1.662
	Pre-1962 policy for Commonwealth and non-Commonwealth	Binary variable: 1=if Commonwealth immigrated pre-policy; 0=if non- Commonwealth immigrated pre-policy (1959-1961)	526	0.423	0.496
	Post-1962 policy for Commonwealth and non-Commonwealth	Binary variable: 1=if Commonwealth immigrated post-policy; 0=if non- Commonwealth immigrated post-policy (1959-1961)	609	0.835	0.372
	Commonwealth (Pre/Post 1962 Policy)	Binary variable: 1=if Commonwealth and immigrated post policy (1962 to 1964); 0=if Commonwealth and immigrated pre-policy (1959-1961)	185	0.721	0.449
	Non-Commonwealth (Pre/Post 1962 Policy)	Binary variable: 1=if non-Commonwealth and immigrated post policy (1962 to 1964); 0=if non-Commonwealth and immigrated pre-policy (1959-1961)		0.470	0.500
Gender	Male	Binary variable: 1=if individual is mixed race; 0=otherwise	1053	0.530	0.473
Educational Qualification	Degree	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.169	0.375
	No qualification	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.338	0.473
	A-level	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.124	0.330
	GCSE	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.125	0.331
	Other degree	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.115	0.319
	Other qualification	Binary variable: 1=if individual is mixed race; 0=otherwise	993	0.129	0.335
Ethnicity/ Race	Asian	Binary variable: 1=if individual is Asian race; 0=otherwise	955	0.308	0.462
	Arab/ Middle East	Binary variable: 1=if individual is Arab race; 0=otherwise	955	0.002	0.457
	Black		955	0.297	0.457
	Mixed Race	Binary variable: 1=if individual is mixed race; 0=otherwise	955	0.040	0.196

	Other race	Binary variable: 1=if individual's race is not classified; 0=otherwise	955	0.024	0.153
	White	Binary variable: 1=if individual is White race; 0=otherwise	955	0.328	0.470
Regional location in Britain	London	Binary variable: 1=if individual is resident in the North-east; 0=otherwise	1051	0.398	0.490
	North East	Binary variable: 1=if individual is resident in the North-west; 0=otherwise	1051	0.005	0.069
	North West	Binary variable: 1=if individual is resident in the North-west; 0=otherwise	1051	0.079	0.270
	Yorkshire	Binary variable: 1=if individual is resident in Yorkshire; 0=otherwise	1051	0.771	0.267
	East midlands	Binary variable: 1=if individual is resident in the East Midlands; 0=otherwise	1051	0.044	0.205
	West midlands	Binary variable: 1=if individual is resident in the West Midlands; 0=otherwise	1051	0.144	0.351
	East England	Binary variable: 1=if individual is resident in East England; 0=otherwise	1051	0.058	0.224
	South-east England	Binary variable: 1=if individual is resident in South East England; 0=otherwise	1051	0.093	0.291
	South-west England	Binary variable: 1=if individual is resident in South-west England; 0=otherwise	1051	0.044	0.205
	Wales	Binary variable: 1=if individual is resident in Wales; 0=otherwise	1051	0.013	0.115
	Scotland	Binary variable: 1=if individual is resident in Scotland; 0=otherwise	1051	0.021	0.143
	Northern Ireland	Binary variable: 1=if individual is resident in Northern Ireland; 0=otherwise	1051	0.025	0.155

The first question we aim to answer is: did the introduction of immigration restriction in 1962 alter the housing tenure pattern of Commonwealth Immigrants? First, we test our hypothesis on homeownership prospects using a simple probability model. We model the conditional probability of homeownership (conditional on a set of vector of unobserved characteristics “ x ” of homeownership “ y ” =1. $P(y=1/x)$. Based on the assumption that $E(u/x)=0$, the zero conditional mean assumption holds:

$$P(y=1|x) = E(y/x) \quad (1)$$

We use a probit model because it constraints values between 1 and 0 and the functions are non-linear, requiring maximum likelihood estimation, because of the effect of x , will be non-linear. Our outcome variable (homeownership) is in binary form, hence the suitability of a probit model. The models adopted are defined in terms of latent variable hence a latent variable approach is used:

$$y_i^* = \mathbf{x}_i' \boldsymbol{\beta} + e_i \quad (2)$$

y_i^* enables us observe if an immigrant owns or does not own, and the values (1 for homeownership and 0 for non-homeownership) are determined by whether the outcome variable (y_i^*) crosses a threshold or not. This suggests that a slight change in some of the observed attributes (x) may change the latent variable to induce an immigrant’s transition to homeownership while others maintain their status. e_i captures the errors which are assumed to be independent of x_i and symmetrically distributed around “0”. The explanatory variable of interest is the treatment, and we include a few other control variables. The estimation equation is as follows:

$$Pr(\text{Homeownership}) = 1 | X_1, \dots, X_n = \beta_0 + \beta_1 \text{treatment} + \beta_2 \text{age at entry} + \beta_3 \text{age} + \beta_4 \text{gender} + \beta_5 \text{educational qualification} + \beta_6 \text{race} + \beta_7 \text{regional location} + \beta_{14} \text{time effects} \quad (3)$$

We report the marginal effect because it shows the impact of the explanatory variables on the probability of homeownership. In other words, we are able to use the marginal effects to estimate the effect of the introduction of immigration restriction.

We expect to take advantage of our quadruple treatment set-up to test the hypothesis and from different angles. For the first treatment (T_1), we expect that non-Commonwealth immigrants before the 1962 Act will have higher homeownership prospects, compared to Commonwealth immigrants before the Act going by the proposition that non-Commonwealth immigrants at this time were under a restrictive immigration system, while Commonwealth immigrants were under a liberalised system. For the second treatment however (T_2), we expect that the introduction of restrictions to immigration should in a way equate non-Commonwealth immigrants with Commonwealth immigrants, hence we do not expect to observe any significant variation in their housing tenure patterns.

Table 2: Treatment Effects (Commonwealth Immigrants vs non-Commonwealth Immigrants)

VARIABLES	(1)	(2)
	Pre-1962 Policy	Post 1962 Policy
Commonwealth Immigrant (vs non-Commonwealth)	-0.285**	0.046
Age at entry	YES	YES
Gender	YES	YES
Educational Qualification	YES	YES
Race	YES	YES
Location Fixed Effects	YES	YES
Time Fixed Effects	YES	YES
Observations	113	339
Pseudo r2	0.214	0.1665

*Robust standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$*

The results suggest that Commonwealth citizens that immigrated before the 1962 policy restriction have a 28% lower homeownership probability compared to non-Commonwealth citizens that immigrated around the same time. We however observe no statistically significant variation in the homeownership prospects of Commonwealth and non-Commonwealth citizens that migrated after the introduction of restrictions. This suggest that the restrictions succeeded in “equating” the status of Commonwealth and non-Commonwealth immigrants after the policy introduction.

As a further step, we test for a variation between Commonwealth immigrants that immigrated to Britain before the restrictive policies and after, and further compare the results with non-Commonwealth immigrants. We expect that Commonwealth citizens that migrated after the restriction should have higher homeownership probability compared to those that immigrated before the restrictions were introduced. We however do not expect any significant variations for non-Commonwealth citizens who immigrated before and after the policy restrictions were introduced because the policy did not apply to them.

Table 3: Treatment Effects (Commonwealth Immigrants vs non-Commonwealth Immigrants)

VARIABLES	(1)	(2)
	Commonwealth Immigrants	Non-Commonwealth Immigrants
Post Policy vs Pre Policy	0.108*	-0.174*
Age at entry	YES	YES
Gender	YES	YES
Educational Qualification	YES	YES
Race	YES	YES
Location Fixed Effects	YES	YES
Time Fixed Effects	YES	YES
Observations	442	126
Pseudo r2	0.1772	0.3104

*Robust standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$*

The results in Table 3 (1) confirm that Commonwealth citizens that immigrated after the introduction of restrictions have a higher homeownership probability than Commonwealth citizens that immigrated before the introduction of the policy. This is consistent with the results in Table 2. However, we also observe a statistically significant negative homeownership prospect for non-Commonwealth citizens that immigrated after the introduction of restriction, compared to those that immigrated before the policy introduction. Ideally, we do not expect to observe any significant variation in their outcomes, because the policy did not apply to non-Commonwealth. We intend to investigate his further and explore more advanced techniques to increase the robustness of the results.

4.0 Summary and Conclusion

The advocates and supporters of restrictive immigration policies often suggest that restrictive immigration has the potential for more benefits than costs. In this study, we attempt to examine the effects of restrictive immigration policies on housing outcomes. Our research is premised on the proposition that restrictive immigration policies offer an effective selection of immigrants with higher socio-economic status, thus immigrants under a restrictive policy system should have a higher probability of homeownership compared to immigrants in liberalised systems.

We test the effect of the immigration restrictions introduced in the Commonwealth Immigration Act of 1962 and find that Commonwealth citizens that immigrated before the introduction of the Act have a much lower homeownership prospect than non-Commonwealth immigrants within the same time period. Furthermore, we find that homeownership prospects for Commonwealth citizens increased after the restriction in immigration for Commonwealth citizens, while no effect was observed for non-Commonwealth citizens. These results are not conclusive and are still being subjected to robustness checks and other techniques such as difference in difference and matching techniques. Furthermore, the hypothesis will also be tested using other housing tenure system (rental and public housing). Though preliminary, the results obtained so far support to the allusion that restrictive policies have the potential for a more effective selection of immigrants of higher socio-economic status that will make significant contribution to the receiving country's economy thought fees, stamp duty and mortgage interest payment.