Mass Involuntary Migration and Educational Attainment

Abstract

When the British left the colonized Indian subcontinent in 1947, two independent states were created: India and Pakistan. Millions of individuals found themselves on the "wrong side" of the border leading to mass scale violence and migration. In this paper, I study the effect of large scale forced migration on educational attainment of individuals who were of school-going age when they were forced to migrate. These immigrants received very little state support because the receiving states were severely resource constrained, but they were granted and treated as the citizens of the newly formed states. I use a cohort-age based differences-in-differences estimation to show that individuals of school-going age, who were born in India and migrated to Pakistan, have a higher likelihood of completing secondary and primary education than their native counterparts. I show that migrants' initial choices regarding location and occupation are two important potential mechanisms. These results provide important insights for the integration of migrants into the receiving communities and for migrant children of school-going age. My results also highlight the importance of a secure environment for fulfilling migrants' educational goals, which in this case, was guaranteed by immediate citizenship status.

Keywords: Forced Migration, Permanent Displacement, Violence, Education, Human Capital.

JEL: N35, N45, N95, O15, D74

1 Introduction

Pakistan and India split in 1947 on the eve of the departure of the British. An estimated 14.5 million people migrated in the 4 years after migration from both sides of the newly carved border (Bharadwaj et al. 2008). The magnitude of this migration is also reflected in the fact that migrants made almost 10% of Pakistan's population of 75 million in 1951. Between August 1947 and May 1948, it is estimated that about 4.7 million migrants moved from West (Pakistani) Punjab to East (Indian) Punjab while almost 3.7 million migrants were on the reverse journey between these two Punjabs (Talbot 2009). The violent nature of Partition is reflected by the estimate that another 2 million went missing and were most likely killed in the violence that ensued (Bharadwaj et al. 2008).

While there is substantial literature on the Partition, and subsequent permanent displacement, in history and political science (Talbot 2009; Talbot 1998; Bharadwaj et al. 2008), empirical research on this important historical event has been difficult to conduct because of (a) the dramatic and sudden nature of the Partition, and the short time frame within which the displacement took place, (b) lack of institutional and educational infrastructure to enable administrative data collection, and (c) the state narratives of both India and Pakistan around the communal violence, which paint the "other" party as the aggressor (Talbot 2008; Bharadwaj et al. 2008).

In this paper, I explore a unique historical setting to study the effect of a large scale permanent displacement on the human capital investment for migrants who were of school-going age when they were forcibly displaced. I use the Partition of Pakistan and India in 1947 as the event of interest which led to mass scale migration on both sides of the border between 1947 and 1951.

Forced migration is an important issue historically and in the contemporary world. The United Nations High Commissioner for Refugees reports that at least 89 million people are currently displaced globally due to wars, conflicts and natural disasters. It is important to understand the integration of permanently displaced migrants into receiving communities in developing countries because 86% of displaced migrants move into developing countries

(UNHCR 2022). These displaced communities are usually settled into camps which take an identity of their own (Palsson 2023) because their inhabitants rarely receive a permanent residency status [1]. Even when there is an effort to integrate the displaced immigrants, there is always a possibility that they will be sent back because of their temporary residential status [2]. Meanwhile, permanently displaced migrants due to Partition of India and Pakistan received immediate citizenship status; but since their respective governments were severely resource constrained, they received minimum state support. What happens to the human capital accumulation of permanently displaced migrants, relative to their native counterparts, when they receive equal rights as the natives but minimal state support is, thus, an important question.

Studying the impact of historical permanent displacement events is also important because historical events are known to shape economic development (Acemoglu et al. 2011; Bannerjee and Iyer 2005; Chaney and Hornbeck 2015; Dell 2010; Dippel 2014; Nunn 2008). Forced migration in early stages of life is a shock whose effects have proven particularly difficult to estimate (Becker et al. 2020; Botticini and Eckstein 2012). Experiences or shocks in early life are known to shape later economic outcomes in life (Almond and Currie 2011; Currie and Vogl 2013; Singhal 2018; Maccini and Yang 2010; Galdo 2013; Leon 2012). Understanding the impact of forced migration in early stages of life, along with the circumstances under which it takes place, is an interesting economic theme to study because migration presents challenges as well as opportunities.

Migrants have been known to have increased demand for education which suggests that forced migration in early stages of life might not affect outcomes such as education in the same adverse way other negative shocks such as civil wars and natural disasters have been known to do. However, the consequences of forced migration for migrants of school-going age are not well understood when migrants are not necessarily immigrating to opportunity.

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[1]The Rohingya refugees in Bangladesh's Cox Bazaar and the Palestinian refugees in Lebanon's Shatilla camp serve as two of the many relevant case studies of refugee camps taking their own identity.

[2]Examples include Syrian refugees in Turkey, Afghan refugees in Pakistan, and Haitians in mainland United States of America after the 2010 earthquake.

Instead, they are migrating to a nascent state with limited resources at its disposal, ill-equipped to deal with the sheer scale of the migration.

Using Pakistan's National Census of 1973, I identify individuals whose country of birth is India and individuals whose country of birth is Pakistan. I classify individuals born in India and living in Pakistan as migrants. I subsequently identify individuals from birth cohorts who were of the school-going age in 1947 and individuals who were older than the average school-going age in 1947. I use a cohort-age based differences-in-differences methodology, similar to Duflo (2001), Bleakley (2010), La Ferrara and Milazzo (2017) and Harari (2019), to estimate how the event of Partition affected the educational outcomes of migrants of school-going age relative to the natives in the same birth cohorts. All three milestones are important in the Pakistani educational system and achieving any one of them significantly alters opportunities available in the job market.

In addition to satisfying the basic differences-in-differences assumptions, I address several other concerns related to identification, including those which have recently emerged in the literature [3] (Rambachan and Roth 2022; Roth 2019; Goodman-Bacon 2021; Sun and Abraham 2020). I find that migrants of school-going age were more likely to achieve certain educational goals, such as completing 10 years of education. This is particularly true for younger cohorts.

Existing empirical literature on the Partition shows that those migrants who went to India are more productive than the resident population in India (Bharadwaj and Fenske 2011), and the districts which received these migrants have higher agricultural yields in India (Bharadwaj and Mirza 2019). Mirza (2022) finds that areas where more migrants resettled experienced greater improvements in literacy in the long run.

Research from other parts of the world on permanent displacement and human capital accumulation points to the same direction that forced migrants often outshine natives. Becker et al. (2020) finds that Polish individuals had no differences in educational attainment before the Second World War but descendants of Poles who were forced to migrate are more

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[3]Potential threats to identification are discussed in detail in section 4.1.

educated 80 years after the war than other Poles. A study on educational outcomes of about 15,000 Ethiopian Jewish children who were involuntarily airlifted to Israel found that the early schooling environment had adverse consequences for high school dropout rates, repetition rates and the passing rate of the domestic students (Gould et al. 2004), but the Haitian children who temporarily moved to United States of America after the 2010 earthquake did not affect the education outcomes of the domestic students (Figlio and Özek 2019).

This paper contributes to the research on the integration of migrants and refugees into the receiving communities. Literature has looked at the impact of these population movements on labor supply (Card 1990), education (Becker et al. 2020; Figlio and Özek 2019), crime (Knight and Turbin 2020), housing prices (Depetris-Chauvin and Santos 2018), and deforestation (Salemi 2021). The sheer scale of the displacement and violence that surrounded the Partition of India and Pakistan makes it unlikely (hopefully) for the world to witness such an event of again. However, it presents us with an opportunity to better understand how permanently displaced migrants can be best integrated into the local communities. My results suggest that migrants who receive immediate citizenship and equal rights as the natives outperform their native counterparts in terms of educational attainment, despite extremely limited state support.

This paper also adds to the literature on the consequences of forced migration by studying the impact of a large scale forced migration into a nascent developing country on migrants' educational attainment.While the impact of forced migration on human capital has been studied in the literature (Becker et al. 2020), the aftermaths of a large scale migration are not well understood when the migrants are not necessarily immigrating to opportunity. In the context considered in this paper, the receiving country is a developing country that has just gained independence as a state after large scale violence along religious lines. In addition, the simultaneous exodus of the colonial British government had left a governance and administrative vacuum. Thus, the migrants are not necessarily immigrating to opportunity

due to several reasons [4].

This research also contributes to the extensive literature that links historical events to subsequent economic development by studying outcomes such as income, health and human capital (Acemoglu et al. 2011; Bannerjee and Iyer 2005; Chaney and Hornbeck 2015; Dell 2010; Dippel 2014; Nunn 2008). Research on historical events that caused large scale forced migration is still nascent, despite the fact that forced migration has been a recurring feature in history.

The following section provides a Background of the event of Partition in 1947. This is followed by a section on Data which explains the construction of age based cohorts and discuss other characteristics of the data. Next, there is a section on Empirical Methodology which outlines the relevance of the differences-in-differences-approach and discusses the potential threats to this identification strategy. This is followed by the Results section where I present my main results. The next section is on Robustness which explores the robustness of results to different cut offs for school-going age, addresses concerns related to bias and power limitations, and provides a placebo test. The last two sections, respectively, discuss the potential Mechanisms that can help explain the channels driving the results and provide a Conclusion.

2 The Partition of India and Pakistan

This section provides a brief history of Partition and the British departure from the Indian subcontinent. It focuses more on the aspects relevant to this paper and is by no means a comprehensive and a nuanced account of this event.

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[4]First primary school enrollment was not mandatory in Pakistan at that time and the literacy rate was less than 17% in Pakistan in 1947 (Bengali 1999). Second, the country had just faced high levels of violence along religious lines, the colonial era British government had just left, and the country had just been carved out on the map, suggesting that there were high constitutional, administrative and legislative constraints severely inhibiting the government's capacity to plan and execute any policies including educational policies. Lastly, the migration was at a massive scale where about 14 million people were permanently displaced. This means that the government's immediate focus regarding migrants' welfare was only on providing them with shelter

2.1   Border Demarcation and Events Leading to the Partition

The official plan of Partition was laid out by the British in a document called the 3rd June Plan. It brought forward the creation of two new states of India and Pakistan in August 1947, from the previously agreed date of June 1948 between the British, and the local political parties. It also laid the foundations for redrawing the boundaries between India and Pakistan which vaguely stated that boundaries would be demarcated by the contiguous majority areas of Muslims and Non-Muslims. A British civil servant Cyril Radcliff was tasked with the responsibility of drawing the borders who lacked any knowledge of the area and the people (Yong and Kudaisya 2000) [5].

Two policy decisions also aggravated the demarcation process. First, Radcliff used the 1941 census for border demarcation but the 1941 census was left incomplete because of the ongoing Second World War, and it was heavily rigged due to lack of oversight (Bharadwaj and Mirza 2019). Radcliff also made a decision to to keep the demarcation decisions secret until the very last minute (Bharadwaj and Mirza 2019). Once the border line was revealed, large scale violence began on both sides of the border with numerous incidents of rioting between Muslims on one side [6] and Hindus and Sikhs on the other (Bharadwaj and Mirza 2019), as they found themselves on "the wrong side of the border". The resulting demarcation, thus, cut off communities from their sacred places of worship, disregarded railway lines and forests, and separated industrial plants from their agricultural supply lines (Khan 2017).

This context provides important insights that will be very relevant for identification purposes later. Since the official decision to split Indian subcontinent into two states was announced in June 1947 and the Partition took place in August 1947, it is not very likely that there was any anticipatory behavior among potential migrants (Yong and Kudaisya 2000; Bharadwaj et al. 2008; Bharadwaj et al. 2015; Talbot 2008; Talbot 2009). Furthermore, the process of drawing the boundary line by Cyril Radcliff took many by surprise. As agreed by

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[5]Some accounts claim that Radcliff had never traveled east of Paris before.
[6]"Side" here is a reference to the border drawn along religious lines.

most historians (Talbot 2009; Yong and Kudaisya 2000), people experienced Partition as an unexpected shock despite the fact that it had been discussed since 1940. While the masses knew that the Partition was coming, all accounts suggest that they could not anticipate where the border would end up. Hence, it is not likely that migrants were able to migrate before 1947 in anticipation of the announcement of the 3rd June Plan.

2.2 The Communal Violence Around Partition

It is important to understand the nature and patterns of violence, not only because this is an important aspect of Partition but also because it will help address potential concerns related to my identification strategy later.

Unfortunately, the sudden and chaotic nature of the Partition, combined with the administrative vacuum due to the departure of the British Raj, did not allow collection of administrative or anecdotal data on the locations, frequency, and intensity of the violence that took place. Occasional communal violence incidents were reported as early as 1946. However, the bulk of rioting and communal violence incidents took place between March 1947 and December 1947 (Yong and Kudaisya 2000; Bharadwaj et al. 2008; Bharadwaj et al. 2015; Talbot 2008; Talbot 2009; Wilkinson 2009) [7].

The rioting had been, until recently, understood by most historians as independent acts of communal or mob violence. However, Talbot (2008) explains that recently, more historians have started thinking of the 1947 communal violence as a genocide. They use the term "retributive genocide" to capture the mutuality of the violence, unlike genocides where only one side is oppressed. Talbot (2008; 2009) cites the carefully plotted train massacres during the event of Partition to argue that there was an element of cooperation [8]. These train

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[7]There were a few exceptions, like Karachi where communal rifts started to emerge in December 1948 because of the influx of Muslim migrants from India -leading to the migration of Non-Muslims to India. Similarly, the state of Hyderabad saw most of the violence in September 1948, leading to the migration of its Muslim communities to the city of Karachi in Pakistan. Generally, it is agreed that the bulk of the displacement took place in 1947, though it continued until 1951 (Bharadwaj et al. 2008; Bharadwaj et al. 2015).

[8]Trains carrying migrants across the borders were stopped and the men, women and children aboard the trains were killed, disgraced and looted. The pictures of these trains arriving at their final destinations still capture the memory of the masses on both sides of the border.

massacres started in march 1947 and continued at least until October 1947 when Pakistan and India formed military evacuation organizations to carry 10 million migrants across both sides of the border by December 1947.

Talbot (2008) further provides evidences of the patterns of violence that emerged around the event of Partition [9]. Most of the violence was communal rather than individualistic in nature, with reports of mobs torching a whole street at night or killing the adult men in a locality (Wilkinson 2009; Talbot 2008; 2009).

Given this sudden and chaotic nature of migration, majority of the migrants arrived in a poor physical state (Talbot 1998). Since most communities and families made a sudden decision to depart, they were unable to carry most of their wealth or belongings. Many migrants had been robbed of their possessions, sometimes by the police officials themselves (Talbot 1998) while others faced extortion, along with violence, on trains [10].

Unfortunately, no comprehensive data exists of the violence incidents and events that took place during the Partition. However, the literature that exists in political science and history suggests the violence was based on the religious affiliation of a minority group in an area and were not selected on an individual's wealth, education and socio-economic status.

2.3   The Dynamics of Displacement, Migration and Rehabilitation

The 1951 Census of Pakistan reported 1 in 10 persons as a refugee or migrant from other parts of the subcontinent. Talbot (1998; 2008; 2009) concludes that the bulk of the migration

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[9]These include accounts of Sikh rulers of princely states instigating violence against Muslims, Hindus and Sikhs being attacked in some cities through deliberately organized military campaigns under the leadership of former Members of Legislative Assembly, rich Hindus' contribution large sums to finance attacks on Muslims, disarmament of the police staff belonging to the minority community in a district, and the police sponsoring the violence on the minority community in a district.

[10]There was one small group that had the choice of deciding their new country of allegiance. These were high ranked government and military officials, and their families. This group could have migrated as early as 1946. Most of them were transported by air, and had arrangements for accommodations in their new country. British Airways transported 18,000 such individuals from India to Pakistan between September and December 1947, and it transported 28,000 individuals the other way around (Talbot 2009). However, this number is dwarfed by the sheer magnitude of migration, where even the most conservative estimates put the number of displaced people at 14 million. More liberal estimates, after accounting for missing persons and casualties, reach as high as 22 million.

took place between March 1947 and December 1947 [11]. Talbot (2009) reports that minority communities had no choice but to leave even when there was no imminent threat [12].

These historical accounts suggest that most of the migration was forced and permanent, done in large groups of communities (Chattha 2009; Wilkinson 2009). The group nature of the migration can be explained by (a) the fact that violence was targeted at whole communities in an area and not an individual household, (b) the unsafe nature of the travel, particularly because of the precisely planned train massacres and (c) the effort to maintain a social network with people from similar geographic and ethnic similarities in the new country (Chattha 2009).

The reports on the conditions of newly arrived migrants paint a deplorable picture (Talbot 1998). They lived in squalid conditions in which many were split from their families. Their refugee camps faced regular cholera outbreaks. Their relatives had been killed or assaulted, and their wealth had been looted. Many of them were traumatized by the horrific massacres they witnessed in their own communities and on the trains on their way to Pakistan.

Despite their lack of resources and capacity, the governments of both India and Pakistan made an active effort to carry out rehabilitation efforts for the migrants. One thing that both the governments had at their disposal was the evacuated land and property. Hence, both governments made efforts to settle communities into evacuated areas (Bharadwaj et al. 2008; Talbot 2009), and develop a system of compensation to settle them (Mirza 2022). Urban and non-agricultural migrants were often assigned group quarters, where more than one family lived in a quarter. Rural families were compensated for the agricultural land

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[11]There are exceptions to this rule though. Non-Muslims from Sind and the city of Karachi in Pakistan mostly migrated in early 1948, while Muslims in the princely state of Hyderabad mostly migrated in the last quarter of 1948 (Talbot 2009). The experience of migration between West Bengal and what is now Bangladesh (formerly East Pakistan) was less intense, relatively smaller in magnitude and took place in waves over a period of time (Talbot 2008; 2009), unlike the experience of migration around Punjab which was sudden, unexpected, massive, and horrific. While most of the migration from the states of Uttar Paradesh and Bihar took place in 1947 and 1948, further unrest between 1950 and 1952 led to further influx of migrants into Pakistan.

[12]One example he cites is the Ambala Division in Indian Punjab where 1.37 million Muslims hoped to stay but eventually everyone had to depart for Pakistan.

they had left behind.

However, the mechanism of land compensation was slow, inefficient and corrupted, particularly for the assignment of agricultural land. There were delays in verification of land records and sometimes the government just refused to compensate the land. Consequently, many migrants moved in groups to areas where they had familial ties or where they could find work. A great many of them ended up settling within the industrial sector in urban areas (Mirza 2022).

Unlike most migration patterns observed around the world and particularly those related to a war or conflict, migrants were able to sustain their social networks in the new country or the new area they settled in because the nature of the 1947 Partition and the communal aspect of mob violence forced communities to move together (Mirza 2022).

Permanently displaced migrants are also different from most forcibly displaced individuals in this context, because they were immediately treated as the citizens of the country they had just arrived in [13]. While their arrival led to social frictions as discussed above, they were legally allowed to have the same voting, employment and other rights as the natives.

Last, while government made an effort to rehabilitate the migrants, it was severely resource constrained. The efforts were mainly limited to initial placement in refugee camps and subsequent allotment of shelter or land for rural migrants. There is no evidence of support for alleviating food insecurity, ensuring employment, providing a cash transfer, or providing health and educational facilities.

2.4 Demographic Changes Caused by the Partition

There were dramatic demographic shifts in both India and Pakistan as a consequence. Overall, regions became more religiously homogenized as minorities moved out but also became ethnically diverse as migrants from a different region moved in (Jha and Wilkinson 2012). Muslims fled from the states of Punjab, Uttar Paradesh, Bihar and Bombay while

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[13]In this particular aspect, the migrants' status was akin to the people of Haiti who were forced to move out of Dominican Republic.

Hindus and Sikhs fled from Punjab, Sind and East Bengal (which later became Bangladesh) [14].

Bharadwaj et al. (2008) find a replacement effect of Partition whereby districts that experienced large scale outflows also experienced greater inflows of migrants. This replacement effect was present for both countries. Bharadwaj et al. (2008; 2015) also find that the overall literacy rate in Pakistan stayed almost the same because the educated Hindus and Sikhs who moved out of Pakistan were replaced by educated Muslims moving into Pakistan. Consequently, the net effect on characteristics such as literacy was not of any economic significance (Bharadwaj et al. 2015).

Second, migratory inflows were greater in the major urban centers of both India and Pakistan (Bharadwaj et al. 2008). Bharadwaj et al. (2008) term this a big city effect; for instance, the district of Karachi in Pakistan had 28% of its population classified as migrants [15]. They also find that more educated migrants were more likely to travel greater distances in search of better economic opportunities that were on the offer in the major urban centers.

2.5 Pre-Partition Education Policy in the British Raj and Post-Partition Educational Policy in Pakistan

Prior to partition, there is no evidence that the colonially imposed education system was different in the modern countries of India and Pakistan. Any shocks or changes in policies before 1947 -such as the recruitment of soldiers for the Second World War- were very likely to have equally affected both migrants and natives, as defined for the purposes of this paper.

There is also no reason to believe that access to education for Muslims was different across the border that was carved in 1947. For example, the province of Punjab was split into two between India and Pakistan, and as mentioned above, the bulk of migration took

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[14]The magnitudes of demographic shifts are staggering: More than 40% of Delhi's population in 1941 was Muslim, compared to only 6.6% in 1951. The city of Karachi also saw its Non-Muslim population shrink from more than 50% to less than 10%.

[15]Karachi is a major metropolitan city of Pakistan and it is also the most densely populated. Majority of literate migrants chose to settle in big cities like Karachi (Bharadwaj et al. 2015). In 1951, 91% of the literate population of the Karachi district was migrants (Bharadwaj et al. 2008).

place between the two newly created Punjabs; it is a safe assumption to make, therefore, that access to education for Muslims was the same in the pre-Partition unified Punjab.

After the Partition took place in 1947, literacy and lack of human capital were a fundamental problem in the newly formed Pakistan. One estimate suggests that 85% of the population in 1947 was illiterate (Bengali 1999). The 1951 Census of Pakistan puts literacy rate at only 16.4%. There was also a shortage of skilled teachers, educators and trainers as a proportion of these workers had been forced to migrate to India.

While the government realized that it was imperative to focus on improving literacy and educational infrastructure in Pakistan, there is no evidence of educational programs specifically targeted towards migrants. As early as 1948, there were calls for "provision of facilities for education on their widest scale and a free and compulsory system of primary education" followed by a six year National Plan for Educational Development in 1951 that aimed at a rapid establishment of educational institutes (Bengali 1999). But these programs were not specifically targeted towards migrants.

3 Data

I use the Housing, Economic, Demographic Characteristics (HED) Survey of 1973 for Pakistan, available through IPUMS. The HED survey was implemented in the second phase of the 1972 census [16]. The survey was administered to about 300,00 households and it is representative at district level. Since the data comes from 1973 and Bangladesh was formed in 1971, I do not have information available on individuals who migrated from India to formerly East Pakistan (Bangladesh).

The survey contains information on country of birth, birth year, household size, and educational outcomes. The information on educational outcomes is categorical and not continuous. Information on income is not available, although information on employment status and type of employment is available. Similarly, information on parents' education is

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[16]The first phase consisted of a full count census.

also not available, but the parents can be identified if they live in the same household as their children.

The country of birth can be used to identify those individuals who migrated from India to Pakistan. Unfortunately, the region or district of birth, for individuals born in India, is not available. I only include individuals living in Punjab and Sind provinces of Pakistan. In my sample, these two provinces hosted about 98.9% of the total migrants from India in 1973 [17].

The main outcome of interest is an indicator variable that equals 1 if an individual has completed 10 years of education. Secondary education in Pakistan is completed at 10 years of education and it is considered an important milestone in an individual's education. Secondary education completion qualifies an individual for clerical work in public or private agencies. Additionally, I use two other outcomes of interest which are indicator variables for completing 5 and 12 years of education, respectively. Completing 5 years of education is equivalent to completing primary education in Pakistan. Meanwhile, completing 12 years of education makes the student eligible for applying to college and seeking higher education and skilled expertise.

The year of the event is defined as 1947, since that was the year the British colonial government departed and the Partition formally took place. I assume that most individuals would have competed 10 years of education by the age of 16. This implies that anyone born after 1931 would be less than 16 years of age at the time of Partition in 1947, and hence, is considered of school going age. In section 6, I perform a robustness check where I change the average age of completion of education to 18 years.

I also restrict my sample size to individuals born between 1923 and 1951 [18]. The final sample consists of 308,546 native individuals and about 117,044 migrant individuals.

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[17]The other two provinces are Baluchistan and Kyber-Pakhtunkhwa (KPK); they only had 1.2% and 0.5% of their population classified as migrants from India in the survey data.

[18]The sample size is too small for the individuals aged above 50, or born before 1923, because the life expectancy was only about 54 years in 1973 (World Bank 1973). Second, only 0.42% of the population born after 1951 is classified as migrants in my sample (which makes sense since most of the migration had taken place by 1951) and there are not enough migrants born after 1951 in the sample relative to natives born after 1951 so I drop the observations for those born after 1951.

Table 1: Sample size for migrants and natives in 7 groups. Each group consists of 4-5 birth cohorts.

Number of migrants & natives in each group

	Natives	Migrants
$Birth_{1947-51}$	91772	7901
$Birth_{1942-46}$	58820	26823
$Birth_{1937-41}$	50536	25249
$Birth_{1932-36}$	42194	21908
$Birth_{1927-31}$	34187	18935
$Birth_{1923-26}$	31037	16228
N	308546	117044
$Birth_{after1951}$	705202	2936

Notes: The data is the total sample size of migrants and natives considered in this paper. Only individuals in the Punjab and Sind provinces are included because of the reasons discussed in the Data section.

An inspection of the data also revealed that for older age cohorts, most of the observations are clustered around multiples of 5 [19]. It is well-known that formal records were not stringently maintained in the Indo-Pak subcontinent at that time. Therefore, I group birth cohorts into six bins of 4-5 year intervals: 1923-26, 1927-31, 1932-36, 1937-41, 1942-46 and 1947-51. Individuals in the first two groups are considered above the school going age in 1947.

Table 1 presents the number of natives and migrants in each age group. Other summary statistics are presented in the appendix: Table A1 presents the summary statistics for different individual, household and district characteristics for all migrants and natives born between 1923 and 1951, while Table A2 prevents the same statistics for only those who would have completed 10 years of education before 1947 i.e. those who were older than 16 years of age in 1947. While the differences between the migrants and natives are statistically significant for every characteristic except percent employment, almost all of these differences are very small in absolute magnitude. There is only one exception: migrants have almost 1 more child than natives, and migrants are about 35% more likely to live in urban areas than natives. The results in Table A2 have the same interpretation.

As reported in Table A2, literacy among migrants who would have completed 10 years of education in 1947 is 9% higher than their native counterparts. It must be noted, however, that literacy in Pakistan in 1951 was defined as the ability to read a clear print in any language which was changed to "the ability to read a simple letter in any language with understanding" in 1961 (Dawn 2012). This definition does not reflect a person's ability to complete educational milestones such as 10 years of education. The remaining differences between migrants and natives in other characteristics are very small in absolute magnitude.

I use other sources of data as well. These include the 1931 Census of India, the 1951 Census of India and the 1951 Census of Pakistan [20]. I use this data to provide descriptive

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[19]This could be because of the poor documentation system in South Asia and in developing countries in general. Most individuals from about a century ago didn't keep proper birth records in many developing countries.

[20]The 1931 Census of India was conducted by the British government. Hence, this census data comes from before the Partition of India into two states and the drawing of the border line in 1947. The 1951 Census

Migrants as a Proportion of Total District Population - 1951
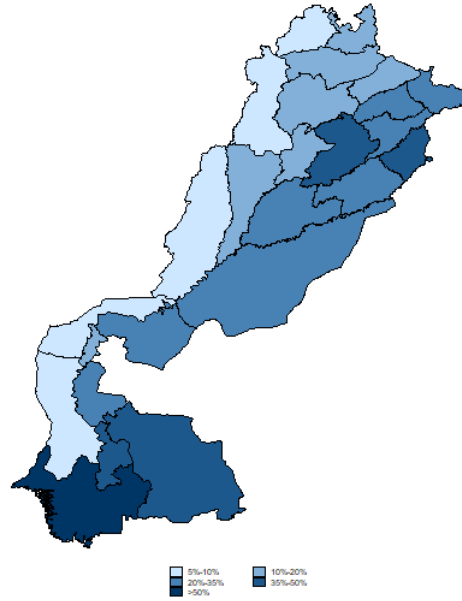
5%-10%   10%-20%
20%-35%   35%-50%
>50%

Figure 1: Proportion of Migrants in Each District in Sind and Punjab provinces, in 1951.

statistics that help us understand the extent of the migration and to provide empirical evidence on some potential mechanisms. I use information on literacy, place of birth, religious composition of the population, labor force classification of migrants and natives, and rural and urban proportion of migrants and natives from three different censuses.

In particular, the changes in religious composition in some districts between 1931 and 1951 can (a) help understand better the magnitude of the migration or permanent displacement, and (b) provide descriptive evidence that migration was motivated by violence along religious lines alone and not by skill, literacy, wealth or other socioeconomic characteristics. Similarly, the proportion of migrants and natives in rural and urban areas, respectively, within a district and the proportion of migrants and natives in agricultural and non-agricultural occupations, respectively, can provide evidence on some mechanisms that enabled migrants to have different educational outcomes than their native counterparts.

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data was collected separately by the governments of India and Pakistan and there are some differences in the information collected by both countries respectively. Pakistan, for instance, does not report the district of origin for the migrants and India.

Figure 1 presents a district level map of Punjab and Sind provinces, showing migrants as a proportion of total district population, as per the 1951 Census of Pakistan. All the Eastern districts share the border with India. The map shows that each district had at least 5% of its population as migrants. The district of Karachi (most South-West on the map) is an exception with almost 54% of its population classified as migrants from India in 1951. The map also clearly suggests that the Western districts, or the districts furthest away from the border- are less likely to have received migrants in 1947.

Next, I disaggregate this information, in Figure A1 in the appendix, which presents migrants as a proportion of urban and rural district populations, respectively. Figure A1(a) presents a district level map of Punjab and Sind provinces, with information on urban migrants as a proportion of a district's urban population, and Figure A1(b) does the same for the district's rural population. It can be clearly seen that migrants preferred to settle in urban areas. Every district had at least 15% of its urban population classified as migrants, in 1951. In contrast, less than half the districts had more than 15% of their rural population classified as migrants, at this time.

4   Empirical Methodology

My empirical methodology is informed by the context of the Partition. Given that I have information available on the year of birth and country of birth, a cohort-time based differences-in-differences estimation strategy can be employed, following Duflo (2001), Bleakley (2010), La Ferrara and Milazzo (2017) and Harari (2019).

My outcome of interest is a dummy variable that equals 1 if an individual has completed 10 years of education. I discussed in section 2.3 that it is not likely that access to education was different for Muslims, on either side of the newly carved border, under the British Raj. Hence, it makes sense to hypothesize that there are or very little differences in educational outcomes of migrants and natives who had completed their 10 years of education before 1947. This hypothesis informs the empirical approach described below.

For the estimates to be identified in a differences-in-differences estimation approach, the

parallel trends assumption should hold, meaning the differences in the outcome of interest between the treatment and control group before the event should be stable. In other words, after accounting for the trend in the birth year cohorts, the differences between migrants born before 1931 and natives born before 1931, in the probability of completing 10 years of education, should be negligible.

For estimates to be causal, the estimation strategy should control for the characteristics of migrants from India and natives in Pakistan. Additionally, it should control for factors that determine who migrated and who decided not to migrate. This would ensure that the estimates comparing the migrants with the natives are causal, conditional on a set of control variables which can be correlated with the event of Partition and/or consequences of migration.

The data set allows me to control for individual and household characteristics as well as some location characteristics. Furthermore, it was established based on the earlier discussion in section 2.4 that the major determinants of migrants' choice of resettlement location included (a) distance from the newly carved border, (b) presence of a major urban center and (c) extent of outflows from an area.

I control for individual and household characteristics, birth cohort characteristics, and location characteristics of the migrants and natives in Pakistan. The empirical specification can be written as:

$$Y_{ij} = \beta_1^g birthyear_{ij}^g + \beta_2^g(birthyear_{ij}^g * migrate_{ij}) + X_i\alpha + Y_h\lambda$$
$$+ Z_k\theta + \eta_j + \epsilon_{ihj}. \tag{1}$$

Here, Y_{ij} is the outcome of interest for individual born in year and currently living in district j, and $birthyear_{ij}^g$ refers to the gth bin to which an individual born in year i belongs, where $g \in [1,6]$. Individuals are classified into six bins according to their year of birth. These bins classify individuals into the following six birth year groups: 1923-26, 1927-31, 1932-36, 1937-41, 1942-46 and 1947-51.

Similarly, $migrate_{ij}$ is an indicator variable that equals 1 if an individual was born in India and migrated to Pakistan. X_i, Y_h, and Z_k are vectors of individual, household and location level controls respectively and η_j are district fixed effects. The location is defined as urban area or rural area within a district. The controls include sex and age of an individual [21], household size, family size, number of children in the household, number of families in the household, a dummy that equals 1 if an individual lives in the urban area of the district, and a dummy that equals 1 if an individual lived in a different district 8 years ago. The main coefficients of interest are β_2^g where $g \in [1, 6]$.

The main outcome of interest is an indicator variable which equals to 1 if an individual has completed 10 years of education. For each birth cohort group, or for each of the six bins $g \in [1, 6]$, β_2^g estimates the difference in the probability of completion of 10 years of education for migrants, relative to that of natives. For instance, β_2^3 estimates this probability for migrants born during the period 1932-36, relative to the natives born in the same period.

Figure 2 plots the coefficients β_2^g from the estimation of the above equation, along with their confidence intervals. As far as the pre-trends assumption is concerned, the difference between migrants and natives who are aged above 16 should be zero. Hence, the two coefficients of interest for this purpose are for migrants who belong to the 1923-26 birth year cohort and the 1927-31 birth year cohort.

As it can be seen in Figure 2, the probability to completing 10 years of education is the same as that of the natives for migrants belonging to the 1923-26 and 1927-31 birth year cohorts. The coefficients are not statistically different from zero, and the size of the coefficients is extremely small and not of any practical significance. Since the pre-trends assumption holds, the differences-in-differences approach for estimating the effect is plausibly identified. The main result that migrants born after 1931 do better than their native counterparts can also be seen but I will discuss that in the next section.

Furthermore, in figure A2 in the appendix, I present the trend in probability of completing 10 years of education separately for natives and migrants. Relative to the oldest or the

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[21] In some specifications, I will use individual birth year fixed effects instead of the group fixed effects
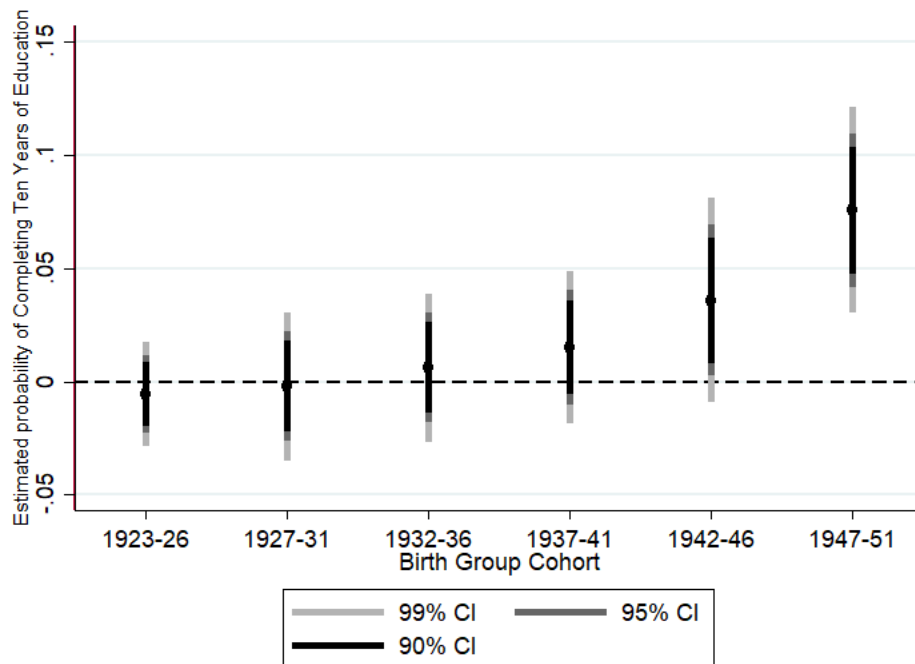
Figure 2: Estimated Probability of Completing 10 Years of Education for Migrants in an age group, relative to natives in the same age group. The birth cohorts have been binned into 6 groups. The 1923-26 and 1927-31 age groups comprise of migrants and natives who should have completed 10 years of education before 1947.

1923-26 age group, both migrants and natives experience a positive trend [22]. However, the probability of completing 10 years of education increases substantially for migrant individuals in the three youngest age groups, or the 1937-41, 1942-46 and 1947-51 age groups. For the natives, it is only the 1947-51 age group for which the probability of completing 10 years of education substantially increases.

## 4.1 Threats to Identification

Just because the pre-trends assumption is satisfied does not imply causality of the estimates. Hence, I will now discuss potential issues that can confound the estimates and how I address them.

Selection of Migrants based on Who Migrated: The most important threat to identification would be that the violence during the event of the migration specifically targeted more or less able individuals and hence, the permanently displaced migrants were selected based on their ability or wealth or other characteristics. As argued in sections 2.2, it is well-established in the literature that the perpetrators of violence did not choose their potential targets on the basis of the targets' abilities or educational qualifications, but only on religious affiliation. Muslims whose lives were under a greater threat in India due to violence in their districts were more likely to migrate regardless of their ability or educational preferences -the same was true for Hindus in Pakistan as well.

I will complement the historical accounts with descriptive evidence. I use Census data from 1931 and 1951 to argue that given the sheer scale of displacement, violence cannot be targeted at just more or less abled individuals. If minority population in a district reduced substantially, it is highly likely that they faced communal rather than individual violence. In that case, they were targeted on their religious affiliation, and not on the basis of their education, wealth or other characteristics. In Pakistan's Sind and Punjab provinces, the change in percentage of the Non-Muslim population in each district between 1931 and 1951

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[22]This makes sense because educational outcomes tend to gradually improve overtime in a developing country.
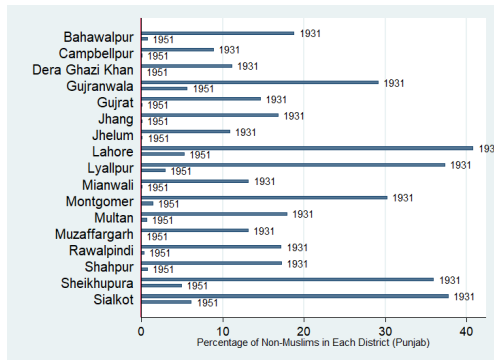
(a) Percentage Non-Muslim population in districts of Pakistani Punjab, in 1931 and 1951.
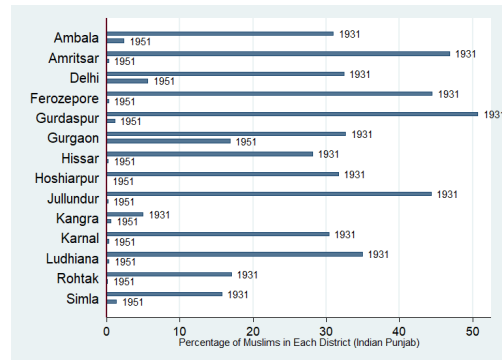
(b) Percentage Muslim population in districts of Indian Punjab, in 1931 and 1951.

Figure 3: Source: 1931 Census of British India, 1951 Census of India and 1951 Census of Pakistan. Similar information is presented for districts in Sind province of Pakistan, and districts in Uttar-Pradesh state of India, in Figure A4.

will be a proxy for the extent of the exodus of Hindus and Sikhs. Similarly, the change in percentage Muslim population in each district in India's UP and Punjab states will be a proxy for the extent of the exodus of Muslims.

Figure 3(a) plots the proportion of Non-Muslim population in Pakistani Punjab for years 1931 and 1951 and Figure 3(b) plots the proportion of Muslim population in Indian Punjab for years 1931 and 1951. No district in Pakistan's Punjab province experienced less than a 5% decrease and three districts experienced greater than 30% decrease in the percentage of Non-Muslims. In India's Punjab, all districts experienced a decrease in the Muslim population [23].

This descriptive evidence supports the view agreed upon by historians, and discussed in sections 2.2, that violence was not disproportionately targeted towards more (less) able individuals. Since the attacks were motivated by religious tensions and were communal in nature, and given the sheer scale of migration, it is plausible that the acts of violence were selective only on the basis of religion.

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[23]Figures A3(a), A3(b) and A3(c) in the Appendix meanwhile plot the percentage change in minority population between 1931 and 1951 in Indian and Pakistani Punjabs, Sind and Uttar Pradesh, at the district level, respectively. Most of the 50 districts in the state of UP experienced a decrease in Muslim population. For the districts in UP which recorded an increase in the percentage Muslim population, the increase is very small. Similarly, all districts of Sind province experienced a decrease in their Non-Muslim population.

A related concern, as highlighted in section 2.2, is that there were smaller waves of migrants arriving from India's Uttar Pradesh and Bihar provinces into Punjab and Sind provinces after 1951. These migrants may have been more or less able, and more or less resourceful individuals. Unlike those who migrated around the time of Partition, they might have been able to bring their material possessions and wealth along as well.

While this can be a potential concern, the distribution of individuals in my sample by country of birth alleviates this concern. Table 1 in section 3 showed that the number of people born in India after 1951 decreases drastically. Only 0.42% of the individuals born after 1951 were born in India, while almost 27.5% of the individuals born before 1951 were born in India. This suggests that the bulk of the migrants in my sample moved before 1951.

Thus, religious friction was solely the largest driver of violence. The magnitude by which the religious compositions of districts in India and Pakistan changed suggest that wealth, business capital, and financial security were not the main determinants of the decision to migrate. Muslims living as a minority in a district in India, and Hindus and Sikhs living as a minority in a district in Pakistan were most vulnerable to the religious violence. A district is a large administrative area and it would usually comprise of a distribution of individuals along literacy, wealth or other characteristics.

Thus, it is very likely that Muslims were targeted in districts where they were in relative minority compared to Hindus (this would also hold true for Hindus located in Muslim majority areas in the current day Pakistan). This implies, that within the population of Muslims based in India, the attacks carried out on them were random and not aimed at any particular subgroup within the Muslim community.

Unfortunately, a comprehensive administrative data on the location, frequency, and intensity of violence incidents is not readily available, for reasons discussed in section 2. This prevents me from empirically verifying the claims made here, but there is substantial evidence in history and political science literature, as well as descriptive evidence, that corroborates this narrative (Yong and Kudaisya 2000; Bharadwaj et al. 2008; Bharadwaj et al. 2015; Talbot 2008; Talbot 2009; Wilkinson 2009).

Selection of Migrants based on Where the Border was Drawn: We also know

that Muslims based in Indian districts nearer to the Pakistan-India border were more likely to migrate than Muslims based in districts further away from the border (Bharadwaj et al. 2008). One potential threat could be that if the border was drawn along socioeconomic lines, it can confound the results. For instance, if the border was defined right next to the districts where literacy rates were high or low among Muslims, it would result in migrants being selectively different from the native population in terms of their educational preferences.

There is no evidence that the boundary carved out for between India and Pakistan was based on differential economic and/or educational outcomes. The border was drawn ostensibly along religious lines (Bharadwaj et al. 2008; Bharadwaj and Fenske 2012). As discussed in section 2.1, there is no evidence that the boundary carved out between India and Pakistan was based on differential economic and/or educational outcomes. The border was drawn ostensibly along religious lines (Bharadwaj et al. 2008; Bharadwaj and Fenske 2012).

Selection of Migrants based on Who Survived Violence: I discussed in section 2 that the violence surrounding the Partition was communal. One form of violence involved targeting minority communities who had decided to migrate; for instance, the carefully plotted train massacres were targeted at migrants who were moving on either side of the carved border.

It is likely that more resourceful migrants were able to take multiple precautions when they decided to migrate. This is a selection issue that is non-trivial to resolve since it is practically impossible to collect literacy information on individuals who did not survive the violence that surrounded Partition.

Nonetheless, the results presented from the differences-in-differences estimation in Figure 2 are reassuring because they show that the differences in educational outcomes between migrants and natives who were out of school-going age are small and not statistically different from zero. Besides, the sign on the coefficient is even negative further strengthening the case against any positive selection.

Pre-existing Differences in Wealth: If the migrants were wealthier than the native population, or moved from areas which were historically wealthier than the areas they settled

into in Pakistan, the estimates will be biased because of these pre-existing differences. While relevant data on wealth of migrants and natives before 1947 is hard to find, there is a general consensus that the sudden and chaotic nature of migration meant that migrants were unable to move any significant wealth with them. Migrants who traveled via trains also lost any wealth they were able to bring to the looting and plundering on the trains.

Migration in Anticipation of the Partition: As discussed in section 2.1, it is also not likely that migrants were able to migrate earlier in anticipation of the announcement of the 3rd June Plan. The process of drawing the boundary line by Cyril Radcliff, and the decision to create two new states in August 1947 instead of June 1948 took many by surprise. While the masses knew that the Partition was coming, all accounts suggest that they could not anticipate where the border would end up (Talbot 2009; Yong and Kudaisya 2000).

Selectively Resettling into Areas with Higher Literacy: It is known that migrants from India settled into industrial locations within urban areas and in big urban centers (Mirza 2022). If these areas had better literacy rates before 1947 relative to areas where migrants did not settle, then it is difficult to isolate the effect of permanent displacement from the effect of the migrants' resettlement decision.

Mirza (2022) finds that areas where migrants resettled were not trending differently in literacy compared to other areas, before the Partition took place in 1947. Thus, this is not a major identification concern. Nevertheless, I add two controls to mitigate this issue. First, the data contains information on whether a household is based in an urban or a rural location within a district. Second, as a robustness check, I use information from the 1951 Census of Pakistan to control for urban and rural proportion of migrants in each district and the district proportion of literate migrants and natives in 1951. I subsequently show that the main result is robust to adding these controls.

Pre-Partition Differences in Education: The identification can be confounded by two potential concerns. First, if the British Raj pursued differential education policies on either side of the border before 1947, the estimates will be biased by the effect of differences in education policy. Second, if the access to education for Muslims was different on either

side of the border before 1947, the estimates will be biased by the effect of differential access to education.

With regards to the former concern, I have explained in section 2.1 that the demand for a separate Muslim homeland did not exist before 1940. Besides, the border drawing process was sudden and chaotic on its own. Moreover, to the best of my knowledge, the British Raj's education policies, as detailed in section 2.5, were decided for the whole Indian subcontinent, without any differences across regions.

Similarly, the latter concern has been addressed in section 2.5 as well, where I have explained that there is no evidence available which suggests that the access to formal education was discriminated by religious affiliation or that Muslims did not have similar access to education on either side of the border.

More importantly, the results presented in Figure 2 empirically corroborate the claim that pre-partition differences in completion of 10 years of education were negligible in absolute size and not statistically different from zero.

Post-Partition Educational Policies: If the Pakistani government targeted any particular educational policy towards migrants after the Partition, then the estimates obtained from Equation 1 will not reflect how migration directly affected educational attainment. Instead, the estimates will be confounded by the effect of different policies migrants experienced relative to the natives.

However, as discussed in section 2.5, there is no known evidence of any targeted policy such as food stamps or cash transfer program conditional on enrolment, construction of schools in areas where migrants resettled or deployment of teachers in areas where migrants resettled. On the contrary, the state faced a shortage of teachers due to the outflows of many Non-Muslim teachers.

Another resettlement decision of the migrants was based on distance from the border. In the data used in this paper, it is only possible to identify the distance from the border at the district level since the spatial location of a household or community is not provided. Nonetheless, distance from the border to the center of a district is a time-invariant control and it will be accounted for by district fixed effects.

It is also important to emphasize that literacy in Pakistan in 1951 was defined as the ability to read a clear print in any language [24] (Dawn 2012). It does not reflect one's ability to achieve educational milestones such as 5, 10 or 12 years of education.

Pre-Partition Migration Rate from India to Pakistan: The data only observes individuals in 1973 and records their country of birth. There is no information available on when an individual migrated from India to Pakistan. However, as discussed in section 2, the general consensus in history and political science literature is that the bulk of migration happened between 1947 and 1948 (Chattha 2009; Talbot 2009; Bharadwaj et al. 2008; Talbot 2008; Bengali 1999, Talbot 1998). While I cannot control for migration rate before 1947, I use data from the 1931 Census of British India and the 1951 Census of Pakistan, to show that out-of-province migration rates were very low before 1947.

In 1931, the average district population born in the same district was almost 89%. The average district population was classified as born out of district but in the same province was about 8% while the remaining district population was classified as born out of province. In 1951, the average district population born in the same district had decreased to 81.6%. Simultaneously, the proportion of a district's out of province population increased from an average of 2.8% in 1931 to an average of 18.7% in 1951, while the proportion of district population which belonged to the same province but was born in a different district decreased from an average of 8.9% in 1931 to an average of 3.05% in 1951.

These statistics suggest that the bulk of demographic changes occurred due to the partition, in line with the replacement effect caused by the event of Partition in 1947, which have been widely discussed in the literature (Bharadwaj et al. 2008). As some of the district's native population left and moved across the border, it was replaced by incoming migrants from across the border.

Methodological Concerns about Staggered Treatment or Variation in Treatment Timing: Identification in contexts with staggered treatment designs or selection in the

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[24]This was measured by a person's ability to read their name. In 1961, this definition was changed to "the ability to read a simple letter in any language with understanding".

timing of treatment have become a major source of concern recently (Goodman-Bacon 2021; Sun and Abraham 2020). However, this is not a major source of concern when the Partition took place in 1947, everyone was exposed to the treatment at the same time. Hence, dynamic treatment effects or variation in treatment timing is not an issue. Similarly, the subsequent issue of heterogeneous treatment effects due to staggered treatment are also redundant here.

Methodological Concerns about Low Statistical Power of Pre-Trends and Unobserved Confounds: Low statistical power of conventional pre-trends tests, and the subsequent exacerbation of bias in point estimates due to lower power is another recently identified concern about using differences-in-differences (Rambachan and Roth 2022; Roth 2019). This is an important consideration because if the parallel-trends assumption only holds due to low statistical power, it voids the identification assumption. I discuss this issue and implement some empirical solutions offered by Roth (2019) in sections 6.2 and 6.3.

5 Results

In this section, I present the results from the estimation of Equation 1 for three different outcome variables. These are indicator variables for completing 10 years of education, 5 years of education, and 12 years of education. I run three different specifications for each outcome variable.

Table 2 presents the results from estimation of Equation 1. The outcome of interest is an indicator variable which equals 1 for individuals who have completed 10 years of education. Column 1 does not include any controls except district fixed effects. Column 2 presents results from the fully specified model. Column 3 controls for all the covariates, but it includes individual year of birth fixed effects instead of group birth cohort fixed effects.

The parallel trends assumption holds for individuals who were older than 16 at the time of the Partition in 1947. In all 3 Columns, the coefficients for migrants who are in birth year groups 1923-26 and 1927-31 is very small and statistically not different from zero. In Columns 2 and 3, the coefficient is even negative. This robust result strengthens the claim that migrants in these age cohorts are not very different from the natives in terms of their

probability of completing 10 years of education.

Next, for migrants who are in the school-going age but are in the 1932-36 and 1937-41 age groups (these would be individuals aged between 11 to 15 years in 1947), the coefficient is positive but it is not statistically different from zero in Columns 2 and 3. For migrants in the 1937-41 birth year group (these would be individuals aged between 6 to 10 years in 1947), the coefficient size is large enough to be of practical significance but it is still not statistically different from zero.

For migrants who were born after 1941 (or were younger than 7 years at the time of Partition), the coefficient is positive and statistically different from zero. In Column 2, migrants in the birth year group 1942-46 cohort were 3.5 percentage points more likely to complete 10 years of education than the natives in the same birth year group. The individuals in the 1942-46 birth year group would be aged between 1 and 5 years at the time of the Partition. In other words, they were not likely to have started their formal education before being permanently displaced.

This effect persists for migrant individuals born up until 4 years after the year of Partition. They did not have much state support but they were immediately treated as citizens of the new country they had arrived in. Hence, it is highly likely that migrant families -of migrant individuals who had not started their formal education in 1947- demanded more education for the children in their house and put a higher value on their children completing 10 years of education, relative to native families who already resided in Pakistan in 1947.

Although the migrant individuals of school-going age and their families placed a higher value on education, the younger migrants had an added advantage. They started their formal education in a much more stable, safe and secure environment. Thus, the migrant individuals from younger birth year groups at the time of 1947 were much more likely to complete 10 years of education than their native counterparts. They did not have much state support, but unlike in most contexts, migrants here also benefited from the fact that, from a legal perspective, they were immediately treated as citizens of the new country they had arrived in.

Table 2: Probability of Completion of 10 Years of Education for Each Migrant Birth Cohort -Relative to Natives in the Same Cohort.

Dependent Variable: =1 if completed 10 years of education

	(1)	(2)	(3)
$Migrant*Birth_{1947-51}$	0.0923	0.0764	0.0807
	(0.0139)	(0.0164)	(0.0169)
$Migrant*Birth_{1942-46}$	0.0585	0.0353	0.0335
	(0.0143)	(0.0166)	(0.0165)
$Migrant*Birth_{1937-41}$	0.0323	0.0127	0.0136
	(0.0111)	(0.0127)	(0.0128)
$Migrant*Birth_{1932-36}$	0.0256	0.0018	0.0038
	(0.0110)	(0.0128)	(0.0127)
$Migrant*Birth_{1927-31}$	0.0148	-0.0082	-0.0051
	(0.0132)	(0.0127)	(0.0124)
$Migrant*Birth_{1923-26}$	0.0148	-0.0138	-0.0105
	(0.0093)	(0.0094)	(0.0093)
Observations	425,441	425,441	425,441
R-squared	0.053	0.134	0.140
District FE	Yes	Yes	Yes
Other Controls	No	Yes	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Comparatively, older migrant individuals faced a disruption in their formal schooling during the event of Partition. Besides, the presence of certain issues immediately after permanent displacement such as access to a secure livelihood, food security and availability of shelter etc. would have further disrupted the access to education and the presence of an enabling environment. Hence, while older migrant individuals in the 1932-36 and 1937-41 age groups are more likely to complete 10 years of education than their native counterparts, the magnitude of this increased likelihood is much smaller and the evidence is weaker.

However, it is important to notice that the migrants in the 1932-36 and the 1937-41 age groups did not perform any worse than their native counterparts, despite the fact that they most likely experienced a break or disruption in their education when they were permanently displaced. Since the coefficient is positive for these groups -albeit not statistically different from zero- they manage to do at least as good as natives in their group if not better. This is particularly true for migrants in the 1937-41 group because the coefficient for this age group is not too small in terms of its practical significance.

I also run a slight modification of Equation 1. Instead of binning individuals into six birth group cohorts, I include an interaction of birth year and the migrate dummy. This modified specification then includes as many interactions as possible which also serves as a good robustness check. As in Column 3 of Table 2, I also control for year of birth fixed effects. I present these results in Figure A4 in the appendix. The results in Figure A4 are virtually the same as the ones presented in Table 2.

Migrants aged 30 or younger in 1973 are those who were born 1941 and afterwards. They are more likely to complete 10 years of education than the natives in their year of birth. For migrants born before 1932 (or older than 41 years in 1973), the coefficients are small in absolute size and only the coefficient for migrants aged 50 is statistically different from zero. For migrants younger than 40 in 1973, all of the coefficients on this interaction term are positive. However, only the coefficients for migrants aged 32 or younger are statistically different from zero.

How much of an increase is this considering Pakistan's literacy rate and proportion of population with 10 years of education? Pakistan's literacy in 1951 was only about 18.9%.

By 1973, it had increased to 26.7%. My results show that migrants in the 1942-46 and 1947-51 age groups were about 3.5 percentage points and 7.5 percentage points more likely to complete 10 years of education, respectively. This definitely played a role in increasing the literacy rate by almost 7% while the country simultaneously had a high population growth rate [25].

My findings support the recent evidence in the literature that Haitians who were forced out of Dominican Republic and were forced to live in a refugee camp but were found to be not disadvantaged compared to the locals (Palsson 2023). While the refugees who moved from Dominican Republic to Haiti stayed in camps -these camps formed an identity of their own and still exist seven decades later- the refugees had a residential legal status but they did not possess complete land rights [26].

Next, I benchmark my estimates against the effect of individual characteristics and other group events. I find my effect sizes to be substantially smaller than the effect of household income on years of schooling, as estimated in causal literature (Cooper and Stewart 2021), but larger than the effect of parents' schooling on child's schooling -parental education has very small or no causal effect on child's schooling (Hu et al. 2021; Behrman 2015; Holmlund et al. 2011). But my estimated effect sizes are very comparable to the estimated effect of group events on education, such as the impact of school construction programs (Duflo 2001) as well as the impact of forced migration on descendants' education (Becker et al. 2020).

Furthermore, in Tables A4 and A5, I also present results from the estimation of Equation 1 but with an outcome variable that equals 1 if 5 years of education have been completed and an outcome variable that equals 1 if 12 years of education have been completed, respectively. I run the same three specifications I have used above in Table 2.

If individuals aged above 16 in 1947 are classified as having completed 10 years of education, individuals aged above 11 in 1947 will be classified as those who are above the

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[25]The population in 1951 was about 33 million which increased to 64.29 million in 1973. The 1951 population does not include East Pakistan which became Bangladesh in 1971.

[26]Meanwhile, the refugees who moved because of the Partition of India and Pakistan had both legal citizenship status, and property and all other rights.

average age at which 5 years of education is completed. Hence, all individuals born before 1936 were above the average age at which 5 years of education is completed. For these migrants, a coefficient that is statistically not different from zero implies that the parallel trend assumption holds.

In Table A4, only the coefficient for the 1947-51 age group is statistically different from zero; in Column 2 of Table A4, the migrants in this age group are 5.8 percentage points more likely than their native counterparts to complete primary or 5 years of education. The differences between migrants and natives for completion of primary education are relatively smaller when compared with the differences for completion of 10 years of education. This is probably because of the government's focus on achieving higher primary school completion rates and because individuals -whether migrants or natives- require much less investment for completing primary education.

5.1   Heterogeneity by Gender and Region

It is also important to understand any heterogeneity in the impact of permanent displacement on different groups. I do this by splitting the sample into groups in two different ways. First, I estimate Equation 1 separately for males and females. Next, I estimate Equation 1 separately for individuals living in urban and rural areas.

In general, it would be expected that male population will acquire education first, particularly in a developing country. Second, migrants in urban areas might be associated with non-agricultural professions which require greater skill than traditional agriculture in developing countries, so urban migrants may also acquire more education.

I present the results in Table A3 in the appendix. Columns 1 and 2 present the results for males and females, respectively. For male migrants, the results are comparable to the main results presented in Table 2. For female migrants who were aged above 16 in 1947, and belong to the 1923-26 and 1927-31 age groups, the coefficient is negative and it is statistically different from zero. However, the younger female migrants gradually catch up with their native counterparts and the 1947-51 migrant female age group outperforms their native counterparts.

Columns 3 and 4 present the results for individuals rural and urban areas, respectively. As expected, it is mostly the urban migrants born after 1941 who experience most of the gains in education, relative to their native counterparts. However, rural migrants do not lag behind their native counterparts in educational attainment. Urban migrants, on the other hand, experience much larger gains in completing 10 years of education.

6   Robustness Analysis

In this section, I present evidence to strengthen my claim that my results are indeed causal. These include a placebo test, additional controls from the 1951 Census of Pakistan, increasing the average age for completing 10 years of education, and addressing recent concerns related to identification and power in a differences-in-differences estimation methodology.

6.1   Placebo Test

If the results are indeed driven by a large scale, forced and permanent displacement and not by the individual's choice to migrate, then any migrants who did not migrate across countries because of forced displacement would not experience a break in trend when the permanent displacement event happened. Specifically, individuals who were born in countries other than India but were living in Pakistan in 1973 should not experience a break in how their educational outcomes trend, due to the 1947 Partition of India and Pakistan.

To see how migrants from other countries perform on completing 10 years of education, relative to their native counterparts, I estimate Equation 1 but migrant is now defined as individuals born in any country other than India [27].

I present the results in Table 3. As expected, migrants born after 1931, or migrants who were still of school-going age in 1947, do not experience a change in the trend of their probability of completion of 10 years of education. In Columns 2 and 3, the coefficients for

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[27]To the best of my knowledge, there is no event until 1971 which could have triggered a permanent displacement with a significant amount of migrants traveling towards Pakistan at the time of the Partition.

Table 3: Placebo Test: Probability of Completion of 10 Years
of Education for Migrants not Permanently Displaced
-Relative to Natives.

Dependent Variable: =1 if completed 10 years of education

	(1)	(2)	(3)
$Migrant * Birth_{1947-51}$	0.0801	-0.0210	-0.0250
	(0.0285)	(0.0509)	(0.0526)
$Migrant * Birth_{1942-46}$	0.0734	-0.0469	-0.0466
	(0.0359)	(0.0547)	(0.0546)
$Migrant * Birth_{1937-41}$	0.0810	-0.0062	-0.0064
	(0.0283)	(0.0316)	(0.0330)
$Migrant * Birth_{1932-36}$	0.0271	-0.1114	-0.0990
	(0.0181)	(0.0600)	(0.0566)
$Migrant * Birth_{1927-31}$	0.0221	-0.0710	-0.0741
	(0.0221)	(0.0371)	(0.0405)
$Migrant * Birth_{1923-26}$	0.0617	0.0111	0.0147
	(0.0262)	(0.0223)	(0.0224)
Observations	311,200	311,200	311,200
R-squared	0.045	0.134	0.140
District FE	Yes	Yes	Yes
Other Controls	No	Yes	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-26 and 1927-31 age groups should have
completed 10 years of education before 1947, and they can be thought
of as "pre-event outcomes for the treatment group". The treatment
group now constitutes of individuals born in all countries except India
and Pakistan. Each coefficient identifies the likelihood of migrants in that
specific cohort for completing an educational milestone, relative to the
likelihood of natives in that same cohort. The p-values are from robust
standard errors clustered at district level.

migrants born in the 1937-41, 1942-46 and 1947-51 age groups are not statistically different from zero. Coefficients for migrants in the older age groups have mixed signs and some of them are statistically different from zero.

Overall, there is no evidence that these migrants' educational outcomes improved or worsened due to the 1947 Partition of India and Pakistan. Besides, across the age groups, there is no consistent trend in the magnitude of the coefficients. This result also adds to the evidence that the event of Partition had no bearing on the educational outcomes of migrants of school-going age who were not forcibly displaced, relative to the educational outcomes of their native counterparts.

6.2   Low Statistical Power and Unobserved Confounds

Roth (2019), and Rambachan and Roth (2022) show that conventional pre-trends in a differences-in-differences may suffer with the problem of low statistical power. Additionally, Roth (2019) shows that in the presence of low statistical power for identifying pre-trends, the bias in post-event point estimates of treatment effect aggravates. This issue becomes less severe with more pre-event time periods but more severe with more post-event time periods.

In the original estimation described in Equation 1, there were two pre-event birth cohort groups and four post-event birth cohort groups. Hence, the lower number of pre-event time periods and greater number of post-event time periods may exacerbate the bias in post-event point estimates of treatment effect. While my sample size is very large with more than 400,000 observations, I do perform two exercises to address this concern.

I aggregate the number of group cohorts in my study, in two ways. The first method creates a simple two period study where the first time period is pre-event and the second time period is post-event. In this context, the former refers to all individuals above 16 years of age in 1947, or equivalently, those born before 1931. In the second method, I keep the two pre-event birth cohort groups as it is, but I aggregate the four post-event group cohorts into one.

The second method in particular has two pre-event time periods and one post-event time

period. Hence, if the pre-trends or parallel trends assumption still holds with this empirical strategy, and if the post-event point estimate of the treatment is comparable to the point estimates presented in Table 2, then the issue of low statistical power and associated bias is alleviated to a great extent.

The results are presented in Table A6. Columns 1 and 2 present the results from a two period study design (one pre-event and one post-event), and Columns 3 and 4 present the results from a three period study design (two pre-event and one post-event). First, the pre-trends assumption holds in all the Columns. Second, the permanent displacement does still increase the probability of completion of 10 years education for migrants who were of school-going age, relative to their native counterparts. This is considerably strong evidence that the pre-trends do not exist due to low statistical power.

Second, the permanent displacement does still increase the probability of completion of 10 years education for migrants who were of school-going age, relative to their native counterparts. The size of the coefficients is much smaller compared to the coefficient in Table 2 for the 1942-26 age group or the 1947-51 age group. This is because all the four treated birth group cohorts after 1931 are aggregated into one treatment group. Because the coefficient for 1932-36 and 1937-41 age groups was much smaller, it drives down the aggregated coefficient in Table 6 for the treated group.

6.3   Weights Assigned to Average Treatment Effect

This section addresses the concerns in the recent differences-in-differences literature that are discussed by Chaisemartin and D'Haultfoeuille (2022), and Chaisemartin and D'Haultfoeuille (2022). In the presence of multiple groups and/or multiple treatment periods, the treatment effect is a weighted estimate. In such a scenario, it is possible that the identified effect is negative but if the weights are also negative, one observes a positive treatment effect (Chaisemartin and D'Haultfoeuille 2022).

Chaisemartin and D'Haultfoeuille (2022) outline the procedure for dealing with such a situation. The first step is to check if the weights are indeed negative. If all the weights are positive, then the estimates do not suffer from this concern. In my checks, all the

specifications returned zero negative weights and all positive weights. Hence, this is not a major source of concern for the treatment effects identified and discussed in this paper.

6.4   Controlling for Parents' Education

Another important concern is that migrants' parents were more educated than that natives' parents which can confound the estimates. While the data does not contain information on parents' education or their income, it does contain information on education for each member of the household. This allows me to identify parents' education for households where parents live together with their children [28].

However, this will be a very selective group because whether a family lives in a joint family household depends on many factors such as income, wealth, number of adults and children, housing prices, location etc. Moreover, the survey data comes from 1973, and older individuals in the sample are less likely to have surviving parents.

Despite these limitations, it is still useful to implement a robustness check that only includes observations whose parents' education is available. I control for a dummy variable that equals 1 if at least one parents is literate, conditional on the parent living in the same household.

I present the results in Table A7. My sample size drops down considerably, from more than 420,000 observations to about 88,000 observations. The coefficients for migrant individuals in the 1923-26 age group and the 1927-31 age group is still negative, but it is now statistically different from zero. While this violates the required parallel trends assumption, the qualitative interpretation of the results does not change because the younger migrants not only catch up but also surpass their native counterparts.

However, as discussed above, this estimation result may be biased by unobserved factors such as household wealth, local housing prices, location of the household etc. Nonetheless, it provides important evidence that parents' literacy status is less likely to bias the original

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[28]As per a news report in 2010, 67% of Pakistanis preferred to live in the joint family system.

estimation results.

6.5 Changing the Threshold Age for Completing 10 Years of Education

I had assumed the average age of completion of 10 years of education is 16 years. However, there is no state enforced age restriction on enrollment in schools in Pakistan. I now define the average age of completion of 10 years of education at 18 years and I conduct the same analysis again. Individuals above 18 years of age in 1947 would be those individuals who were born up until 1929. I classify the individuals into four birth year groups or bins: 1923-29, 1930-36, 1937-43 and 1944-51.

The results are presented in Table A8. As expected, the coefficient for the migrants who belong to the 1923-29 birth group is not statistically different from zero. The interpretation of the main results does not change. Migrants belonging to the birth year group 1944-51 have the largest coefficient size. The coefficient for the migrants who belong to the 1930-36 and 1937-43 age groups is positive but it is not statistically different from zero in Columns 2 and 3.

Using the redefined birth group cohorts in this section, I present similar results with an outcome variable that equals 1 if 5 years of education have been completed and an outcome variable that equals 1 if 12 years of education have been completed, respectively. The results are presented in Tables A9 and A10 in the Appendix, respectively. The qualitative interpretation of the results remains the same, suggesting that the results are robust to changes in assumptions about when certain education milestones are completed.

6.6 Additional Controls for Addressing any Selection Issues

Based on the discussion in section 2, other potential factors confounding the estimate can be (a) migrants resettled either in areas closer to the border, (b) they went to industrial sectors within urban areas in the form of large groups, and (c) they were also resettled in areas with big outflows of minority population towards India (Mirza 2022; Bharadwaj et al. 2015; Bharadwaj et al. 2008).

While I can control for the distance from the center of the district to the border, the

survey data from 1973 does not identify households below the district level. Since it is a time invariant control, it would have been accounted for by district fixed effects. Unfortunately, I cannot identify households at a more granular administrative level than district. However, district fixed effects should account for distance from the border.

The other two potential confounds concerning migrants' location are partially alleviated by the fact that I control for whether a household is located in an urban area within a district, and the fact that Mirza (2022) shows that areas where migrants settled were not trending differently in literacy than other areas, before 1947.

Additionally, I use the 1951 Census of Pakistan to add controls for literacy rates and proportion of urban and rural population, for both migrants and natives. The literacy data is available at district level for migrants and natives. The population and employment data is available at the tehsil [29] level for both migrants and natives, and it is available for both urban and rural areas. I construct two variables: the first one is the migrant and native population in rural and urban areas, respectively, as a percentage of total district population of each area. This control accounts for the changes in district literacy due to the influx of migrants. Next, I create a variable for literate migrants and natives as a percentage of total district population. I present the results in Table A11 in the appendix.

The specifications in table A11 are comparable to the specification in Column 2 of Table 2. Column 1 only controls for literacy in 1951, Column 2 controls for population proportions in 1951 and Column 3 adds both the controls. Compared to the results in Table 2, the coefficient sizes are slightly larger. The qualitative interpretation of my main result, that younger migrants outperform their native counterparts, holds.

7 Mechanisms

Partition was a broad phenomenon which resulted in demographic changes, mass violence, casualties, end of colonial era, new governments, the birth of a new country and an increased

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[29]Tehsil is an administrative level in South Asia that falls under the district.

religious homogeneity on both sides of the newly carved out border. Hence, there were many different mechanisms at play which could have led to higher educational attainment.

Theory and applied research in development microeconomics present testable hypothesis for understanding the potential link between permanent displacement of school-going migrants and their higher likelihood of completing certain educational milestones. Broadly, the two themes that may help explain the higher educational attainment of migrants are (a) the location and occupational decisions taken by migrants, and (b) the change in their behavior due to forced migration and their legal status in the receiving country (Harris and Todaro 1970; Brenner and Kiefer 1981; Todaro 1986; Munshi 2003; Munshi and Rosenzweig 2016; Swee 2017).

7.1 Location and Occupational Decisions

Developing countries typically see a rural-urban migration pattern because of depressed wages in the rural sector and better socioeconomic opportunities in urban areas (Todaro 1986). The same phenomenon may induce permanently displaced migrants to settle in urban centers.

It is known that forced migrants due to the Partition were willing to travel greater distances to settle into urban centers (Bharadwaj et al. 2008). In addition, the government of Pakistan had allotted lands to the migrants (Bharadwaj and Mirza 2019) and a substantial number of migrants settled in industrial sectors within urban areas where they were allocated group quarters [30] (Mirza 2022); these areas are not very likely to offer opportunities in agriculture. Hence, migrants in urban centers had to seek non-agricultural occupations. Non-agricultural occupations are more likely to require skills, and hence, literacy, compared to agricultural occupations -particularly in developing countries where low skilled labor is typically employed by the agricultural sector. Thus, the choice of location and occupation

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[30]This is reflected by the fact that 28% of Karachi's population in 1951 comprised of migrants. The city of Karachi which was the national capital at that time as well as the financial hub. Karachi was also an outlier because 91% of its literate population comprised of migrants! (Bharadwaj et al. 2015).

may have led to an increased demand for education among migrants.

I present two pieces of evidence in this regard. The 1951 Census Data contains information on the number of workers in each tehsil [31] and the number of migrants and natives engaged in agricultural and non-agricultural occupations. Second, I use the data on location in the 1951 Census of Pakistan to determine if more migrants were living in urban areas.

Table 4 presents information on the likelihood of working in non-agricultural professions. The dependent variable is the proportion of total district workers belonging to each group -where group refers to being a migrant or a native- who are engaged in non-agricultural professions. The explanatory variable of interest is a dummy variable that equals 1 for migrants. Migrants are about 14.1 percent more likely to engage in non-agricultural occupations, and the coefficient is statistically significant at 99% significance level.

In Columns 2 and 3 of Table 4, I take disaggregated data for occupations which classifies workforce living in rural and urban areas within each tehsil. I split the sample into urban and rural areas, respectively. The dependent variable in Column 2 is the urban proportion of total district workers belonging to each group who are engaged in non-agricultural professions. In Column 3, the dependent variable is the rural proportion of total district workers belonging to each group who are engaged in non-agricultural professions.

I find that urban migrants are about 10.6 percent not more likely than urban natives in terms of working in non-agricultural professions. In Column 3, however, rural migrants are only about 3.6 percent more likely than rural natives to engage in non-agricultural professions. Only the coefficient in Column 2 is statistically different from zero.

The results in Table 4 clearly suggest that, in 1951, migrants were more likely to engage in non-agricultural professions. This is particularly true for urban migrants. These findings are similar to those of Peters (2022) who found that Germans expelled from Eastern Europe and transferred to Western Germany, after the Second World War, increased manufacturing employment.

Next, in Table A12, I also present evidence which suggests that migrants were indeed

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[31]Tehsil is an administrative level below district.

Table 4: Migrants' in the Non-Agricultural Labor Force

| | Proportion of Non-Agricultural Workforce | | |
| | (1) | (2) | (3) |
	Total Share	Urban Share	Rural Share
Migrant	0.1410	0.1056	0.0355
	(0.0264)	(0.0173)	(0.0315)
Observations	277	277	277
R-squared	0.307	0.336	0.191
District FE	Yes	Yes	Yes
Other Controls	No	No	No

Notes: Each coefficient identifies the proportion of migrant workers engaged in non-agricultural professions, relative to the proportion of native workers. Column 1 includes all individuals, while Columns 2 and 3 split the sample into urban and rural individuals, respectively. The p-values are from robust standard errors clustered at district level.

more likely to settle in urban areas. The dependent variable here is the proportion of total district population belonging to each group, in urban and rural areas, respectively. While Column 1 suggests that just being a migrant had no effect on the proportion of population belonging to each group, Column 2 suggests that being an urban migrant increased the proportion of urban population by about 17 percent.

This is an important channel that would have helped younger cohorts achieve higher educational goals. Being in urban areas of metropolitan cities increases the access to educational infrastructure. For forced migrants, a convenient environment for pursuing education can be very important in completing certain educational milestones (Gould et al. 2004). The security guaranteed by the immediate citizenship coupled with better access to education is likely to have played an important role in migrants' higher educational attainment.

I also check for a third potential mechanism related to location decisions. As discussed before, migrants often took location decisions in groups (Mirza 2022); a distinctive feature of the permanent displacement caused by the Partition of India and Pakistan was that migrants were able to maintain their networks because of the "group nature" of the migration. This would suggest that a stronger cushion was available to migrants in the form of informal

social protection from extended family. Stronger social support is likely to allow migrant individuals to pursue education, without shouldering the responsibility of contributing to family earnings, relative to their native counterparts.

The data contains information on whether extended family lives in the same house. I use this information to see if migrants in different age groups were more likely to live with extended family in 1973, compared to the natives in their own age group. Table A10 presents results from an estimation with the dependent variable that equals 1 if an individual is living with the extended family. This time, fully specified Equation 1 is estimated.

Except for the 1927-31 and 1947-51 age groups, the coefficient is positive. However, all the absolute coefficient sizes are also very small in terms of their practical significance. Therefore, there is no conclusive evidence that individuals who migrated were more likely to be living with extended family in 1973 than their native counterparts.

Nonetheless, it might have been the case that migrants initially lived with extended families but had ceased to do so by 1973. Besides taking the migration decisions in groups, quite a few migrants were initially allocated group quarters as part of the government's settlement plan (Mirza 2002; Bharadwaj et al. 2008, Talbot 2009; Talbot 2008).

7.2   Demand for Education and Equal Citizenship Rights

The other two potential mechanisms include the possibility that (a) forcibly displaced migrants and their families placed a higher value on education and were thus more intrinsically motivated, and (b) that migrants' possession of equal citizenship, property and other rights enabled them to outperform their native counterparts. These two mechanisms might complement each other or one mechanism may be of substantially higher importance than the other.

Unfortunately, I do not have (a) data available on educational preferences to test for their intrinsic motivation, or (b) a control group of forcibly displaced migrants who did not receive full citizenship rights to compare how the they might differ in educational attainment from migrants who received full citizenship rights. I can, thus, only provide a qualitative discussion here.

The literature on educational outcomes of migrants does suggest that migrants tend to

have a higher demand for education (Brenner and Kiefer 1981; Becker et al. 2020). Brenner and Kiefer (1981), in their pioneering study on the economics of diaspora, also point out three reasons why the migrants may have more incentives to invest in human capital. These include (1) the migrants being initially more educated which contributes to an increase in human capital accumulation, (2) occupational discrimination against migrants, and (3) even if there is a decline in this discrimination overtime, the investment in human capital continues due to either the patterns of human capital accumulation by parents or older generations.

More importantly, Becker et al. (2020) show that descendants of Polish migrants who were forcibly displaced during the Second World War had a higher demand for education relative to descendants of both voluntary migrants and natives. Becker et al. (2020) also found evidence in support of the "uprootedness hypothesis" which is essentially a shift in preferences towards investment in education instead of investment in physical capital. They found that people with migrant ancestors not only had higher educational aspirations but they also owned fewer assets than what they could afford.

Hence, in the context explored by Becker et al. (2020), forcible displacement due to migration shifted the preferences towards investment in education and away from material possessions. The same was not true for voluntary migration. In the context studied in this paper, violence was a major determinant of migratory outflows and individuals in districts with more violence were more likely to migrate (Jha and Wilkinson 2012). The sequence of events faced by forcibly displaced migrants in this context is comparable to the events faced by Polish migrants, as described by Becker et al. (2020).

Additionally, migrants displaced due to the Partition settled into a secure an enabling environment because they received immediate citizenship status, property rights, and all other rights that the natives possessed. This may be an important reason that can help explain why the migrants did not live in refugee camps or group quarters permanently, unlike the forcibly displaced migrants in other parts of the world who can live in refugee camps for decades and their refugee camps can take a social and economic identity of their own (Palsson 2021).

8   Conclusion

In this study, I considered the educational outcomes of individuals who were forced to migrate from one country to another. Forced migration is an important issue in both historical and modern times. The United Nations estimates that more than 89 million people are currently forcibly displaced due to wars, conflicts and natural disasters (UNHCR 2020).

In line with the other findings in the literature, I find that migrants are more likely to achieve certain educational milestones relative to their native counterparts. This suggests that, while the immediate consequences of forced migration are brutal and dramatic, migrants can achieve better outcomes relative to the native population in the presence of a stable, peaceful and enabling environment.

What differentiates these migrants from those studied previously in the literature is is that they lacked any state support. They had immigrated into a newly formed country which was facing a political and constitutional crisis, lacked basic educational infrastructure, had just emerged out of a wide-scale violent episode of Partition and had millions of migrants to accommodate. Even in the face of this adversity, migrant children were able to perform much better than their native counterparts.

In this process, the migrants were facilitated by their decision to settle in urban areas or major urban centers of Pakistan would have increased the access to educational facilities. Additionally, it is plausible that migrants' preferences shifted away from investment in physical capital to investment in education; literature has found that this "uprooted hypothesis" is an important channel that can help explain the higher educational aspirations of migrants relative to the native population.

Nonetheless, the findings reported here are important because they show that individuals who have been forced to migrate achieve better educational outcomes even when the receiving country's government can only offer limited support. However, forced migrants are able to not only nullify the negative affect of a negative shock in the early stages of their lives but they are also able to achieve better educational outcomes than their native counterparts.

This study also holds importance for migrating children of school-going age around the globe. It suggests that as long as these migrants can settle in a stable and peaceful environment, and are granted a citizenship status similar to those of the natives, they are highly likely to outperform their native counterparts in educational attainment. In the pursuit of better education, migrant individuals of school-going age are likely to be undeterred by difficulties such as lack of state support, permanent displacement of masses, limited educational infrastructure and the pressure of securing a livelihood.

The challenges involved in forced migration and permanent displacement can, however, partially hinder their ability to attain certain educational milestones. This explains why older migrants who were still of school-going age do not do better than their native counterparts in terms of educational attainment. Nonetheless, the availability of a stable and peaceful environment can ensure that at least some, if not all, migrants of school-going age have a higher propensity to attain education than their native counterparts.

An important conclusion is that the migrant and permanently displaced individuals do not require a lot of state support for pursuing their educational goals. Thus, this study points out at the importance of ensuring stability and full legal rights as natives in the lives of migrants and permanently displaced people around the globe. If policy makers can, at the minimum, ensure a peaceful and stable environment for permanently displaced individuals, and ensure rights equivalent to the native citizens, these individuals can achieve higher educational milestones. As seen in the context studied in this paper, this holds true even for large scale permanent displacement of communities in developing countries.

This study only concentrates on estimating the educational achievements of the migrants. However, the changes in educational preferences of migrants is very likely to have had broader impacts on the Pakistani economy. How did the economy respond to a shock in the supply of educated workers in the long run? Studying these effects can be a potential objective of future research work related to migration.

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A   Appendix A

Table A1: Sample Characteristics of Migrants and Natives born b/w 1923 &
1951.

Summary statistics for migrants and natives born b/w 1923 & 1951

	Natives	Migrants	t-stat of Difference
Family size	5.911	6.340	0.429
	(3.452)	(3.411)	(36.29)
Household size	5.987	6.366	0.379
	(3.463)	(3.424)	(31.98)
No. of families in a Hh	1.054	1.036	-0.0176
	(0.418)	(0.293)	(-13.21)
No of own children	2.029	2.917	0.888
	(2.096)	(2.403)	(118.40)
Age at Marriage	18.19	17.94	-0.248
	(3.552)	(3.310)	(-13.89)
Literate	0.266	0.344	0.0781
	(0.442)	(0.475)	(50.43)
Percentage living in a different	0.0681	0.0600	-0.00804
district 8 years ago	(0.252)	(0.238)	-9.44
Percentage living in urban	1.433	1.758	0.325
areas	(0.496)	(0.428)	(197.93)
Percentage active in	0.517	0.522	0.00514
labor force	(0.500)	(0.500)	(2.97)
Percentage employed	0.973	0.974	0.00123
	(0.163)	(0.160)	(1.60)
N	308546	117044	

Notes: Columns 1 and 2 report the mean of each statistic for natives and migrants,
respectively. This table includes the full sample size. The standard deviation is reported
in parenthesis. Column 3 reports the differenced t-test with the t-statistic reported in the
parentheses.

Table A2: Sample Characteristics of Migrants and Natives born b/w 1923 & 1931.

Summary statistics for migrants and natives born b/w 1923 & 1931

	Natives	Migrants	t-test Difference
Family size	5.856	6.326	0.470
	(3.201)	(3.296)	(21.98)
Household size	5.917	6.354	0.437
	(3.212)	(3.308)	(20.34)
No. of families in a Hh	1.041	1.034	-0.00707
	(0.341)	(0.279)	(-3.33)
No of own children	2.962	3.456	0.494
	(2.326)	(2.508)	(31.22)
Age at Marriage	18.83	18.43	-0.398
	(3.954)	(3.524)	(-10.49)
Literate	0.266	0.344	0.0904
	(0.442)	(0.475)	(33.63)
Percentage living in a different district 8 years ago	0.0467	0.0525	0.00587
	(0.211)	(0.223)	(4.12)
Percentage living in urban areas	1.383	1.731	0.348
	(0.486)	(0.444)	(111.46)
Percentage active in labor force	0.541	0.537	-0.00443
	(0.498)	(0.499)	(-1.34)
Percentage employed	0.985	0.978	-0.00715
	(0.122)	(0.148)	(-6.02)
N	308546	117044	

Notes: Columns 1 and 2 report the mean of each statistic for natives and migrants, respectively. This table only includes individuals who would have completed 10 years of education before 1947. The standard deviation is reported in parenthesis. Column 3 reports the differenced t-test with the t-statistic reported in the parentheses.
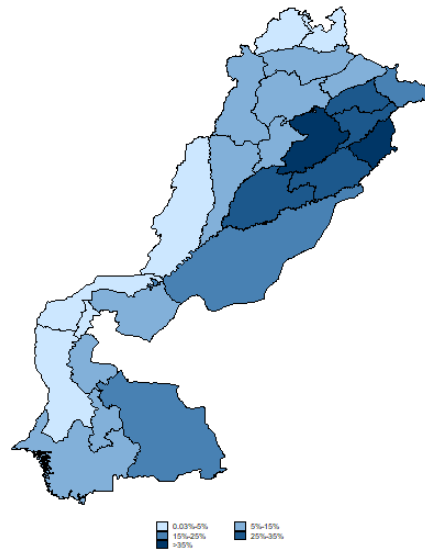
Urban Migrants as a Proportion of District's Urban Population - 1951

Rural Migrants as a Proportion of District's Rural Population - 1951
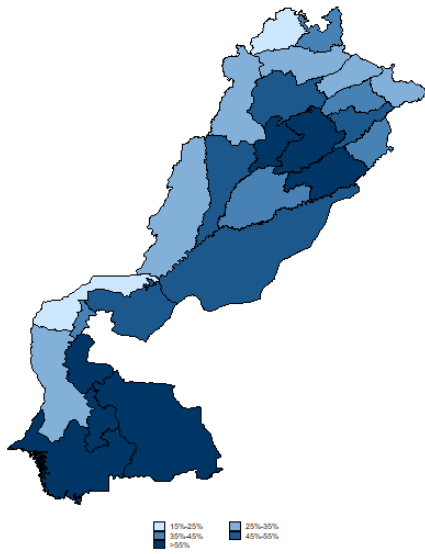
(a) Proportion of Urban Migrants in Urban Areas
of Each District.

(b) Proportion of Rural Migrants in Rural Areas
of Each District.

Figure A1: Urban and Rural Migrants, as a Proportion of District Urban and Rural Population, in 1951.
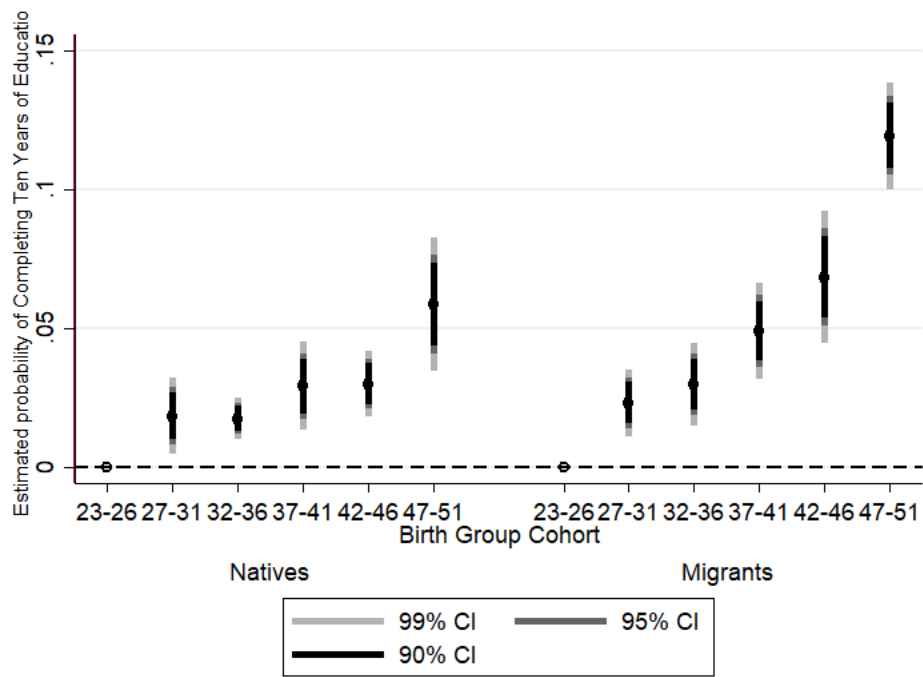
Figure A2: Estimated Probability of Completing 10 Years of Education for Migrants and Natives, separately. The base group is the 1923-26 age group. The 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947.
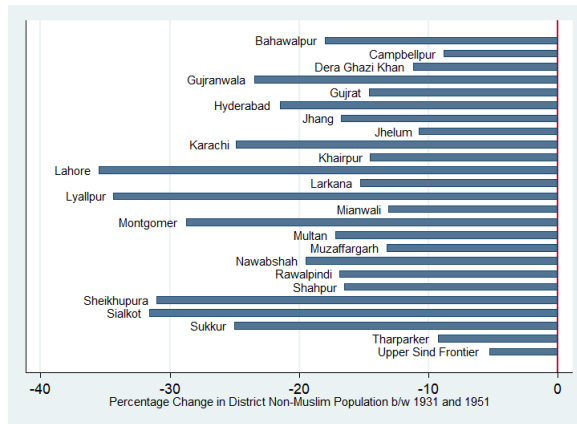
(a) Change in percentage Non-Muslim population in districts of Pakistani Punjab and Sind
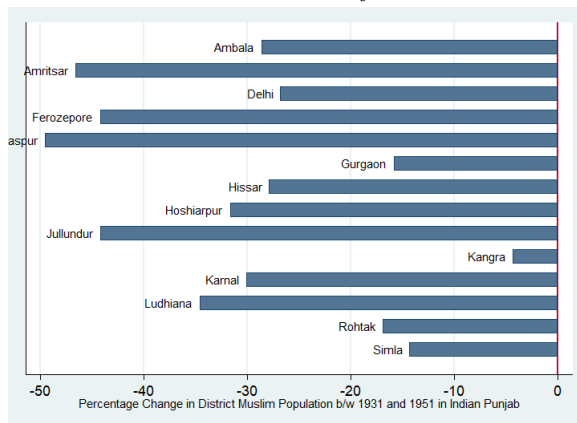
(b) Change in percentage Muslim population in districts of Indian Punjab
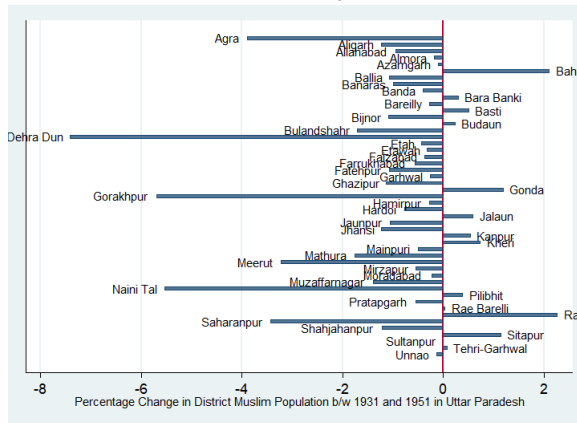
(c) Change in percentage Muslim population in districts of Uttar Paradesh

Figure A3: Source: 1931 Census of British India, 1951 Censuses of India and Pakistan.
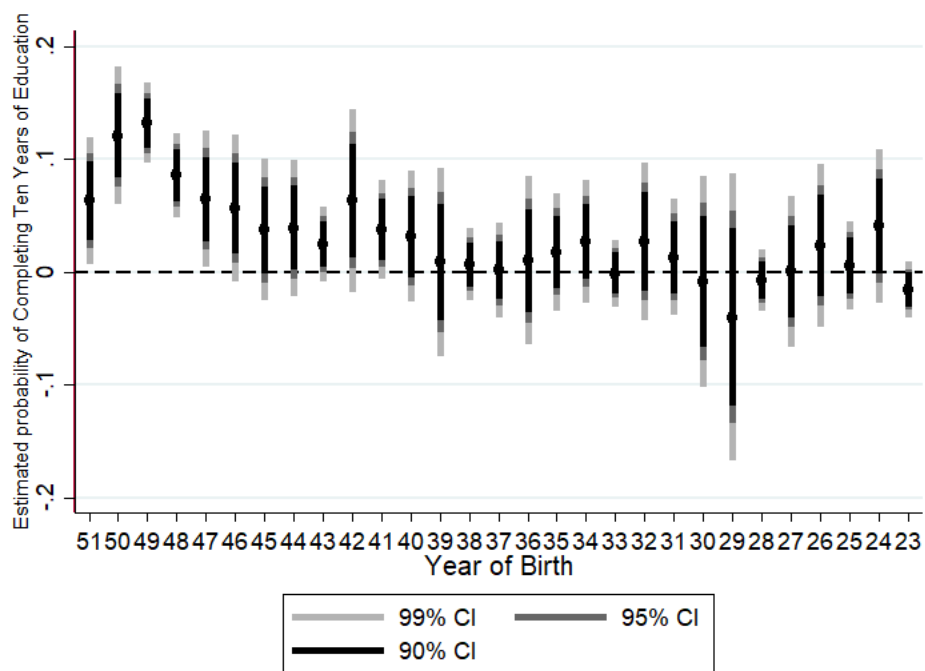
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Figure A4: Estimated Probability of Completing 10 Years of Education for Migrants in each year of birth, relative to natives in the same year.

Table A3: Probability of Completion of 10 Years of Education for Each Migrant Birth Cohorts-Relative to Natives in the Same Cohort- by Sex and Location.

Dependent Variable: =1 if completed 10 years of education

	(1)	(2)	(3)	(4)
	Males	Females	Rural	Urban
$Migrant * Birth_{1947-51}$	0.0735	0.0819	0.0129	0.0676
	(0.0164)	(0.0185)	(0.0091)	(0.0105)
$Migrant * Birth_{1942-46}$	0.0574	0.0135	0.0178	0.0604
	(0.0221)	(0.0118)	(0.0053)	(0.0304)
$Migrant * Birth_{1937-41}$	0.0264	-0.0007	0.0062	0.0376
	(0.0213)	(0.0057)	(0.0065)	(0.0259)
$Migrant * Birth_{1932-36}$	0.0124	-0.0085	0.0037	0.0246
	(0.0227)	(0.0045)	(0.0037)	(0.0280)
$Migrant * Birth_{1927-31}$	-0.0058	-0.0118	-0.0090	0.0223
	(0.0233)	(0.0052)	(0.0062)	(0.0247)
$Migrant * Birth_{1923-26}$	-0.0102	-0.0202	-0.0030	0.0233
	(0.0181)	(0.0069)	(0.0031)	(0.0225)
Observations	227,441	198,000	203,137	222,304
R-squared	0.126	0.101	0.093	0.111
District FE	Yes	Yes	Yes	Yes
Other Controls	Yes	Yes	Yes	Yes

Notes: The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Columns 1 and 2 split the sample into males and females, while Columns 3 and 4 split the sample into individuals living in Rural and Urban areas. Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A4: Probability of Completion of 5 Years of Education for Each Migrant Birth Cohorts -Relative to Natives in the Same Cohort.

Dependent Variable: =1 if completed 5 years of education

	(1)	(2)	(3)
$Migrant * Birth_{1947-51}$	0.1152	0.0892	0.0930
	(0.0167)	(0.0197)	(0.0204)
$Migrant * Birth_{1942-46}$	0.0980	0.0577	0.0541
	(0.0189)	(0.0224)	(0.0223)
$Migrant * Birth_{1937-41}$	0.0581	0.0220	0.0232
	(0.0150)	(0.0199)	(0.0200)
$Migrant * Birth_{1932-36}$	0.0586	0.0157	0.0187
	(0.0167)	(0.0199)	(0.0196)
$Migrant * Birth_{1927-31}$	0.0453	0.0027	0.0076
	(0.0177)	(0.0198)	(0.0192)
$Migrant * Birth_{1923-26}$	0.0410	-0.0070	-0.0017
	(0.0138)	(0.0165)	(0.0160)
Observations	425,441	425,441	425,441
R-squared	0.066	0.194	0.202
District FE	Yes	Yes	Yes
Other Controls	Yes	No	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-26, 1927-31 and 1932-36 age groups should have completed 5 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A5: Probability of Completion of 12 Years of Education for Each Migrant Birth Cohorts -Relative to Natives in the Same Cohort.

Dependent Variable: =1 if completed 12 years of education

	(1)	(2)	(3)
$Migrant * Birth_{1947-51}$	0.0649	0.0582	0.0609
	(0.0093)	(0.0118)	(0.0117)
$Migrant * Birth_{1942-46}$	0.0287	0.0190	0.0176
	(0.0105)	(0.0119)	(0.0118)
$Migrant * Birth_{1937-41}$	0.0137	0.0068	0.0073
	(0.0074)	(0.0081)	(0.0082)
$Migrant * Birth_{1932-36}$	0.0076	-0.0012	-0.0002
	(0.0053)	(0.0070)	(0.0070)
$Migrant * Birth_{1927-31}$	-0.0000	-0.0076	-0.0058
	(0.0088)	(0.0078)	(0.0075)
$Migrant * Birth_{1923-26}$	0.0031	-0.0085	-0.0067
	(0.0045)	(0.0041)	(0.0040)
Observations	425,441	425,441	425,441
R-squared	0.030	0.086	0.090
District FE	Yes	Yes	Yes
Other Controls	Yes	No	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-26 age group should have completed 12 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A6: Robustness Check: Reducing the Number of Post-Event Time Periods

Dependent Variable: =1 if completed 10 years of education

	(1)	(2)	(3)	(4)
	Two Period		Three Period	
$Migrant * Birth_{1932-51}$	0.0293	0.0282	0.0254	0.0253
	(0.0088)	(0.0091)	(0.0148)	(0.0151)
$Migrant * Birth_{1923-31}$	-0.0038	-0.0030		
	(0.0097)	(0.0095)		
$Migrant * Birth_{1927-31}$			-0.0023	-0.0011
			(0.0117)	(0.0114)
$Migrant * Birth_{1923-26}$			-0.0056	-0.0050
			(0.0082)	(0.0080)
Observations	425,441	425,441	425,441	425,441
R-squared	0.134	0.140	0.134	0.140
District FE	Yes	Yes	Yes	Yes
Other Controls	Yes	Yes	Yes	Yes
Birth-Year FE	No	Yes	No	Yes

Notes: In Columns 3 and 4, The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". In Columns 1 and 2, this will be the 1923-31 age group. Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A7: Robustness Check: Controlling for
Parents' Literacy.

Controlling for Parents' Literacy

	(1)	(2)
$Migrant * Birth_{1947-51}$	0.0283	0.0295
	(0.0099)	(0.0101)
$Migrant * Birth_{1942-46}$	0.0133	0.0163
	(0.0091)	(0.0092)
$Migrant * Birth_{1937-41}$	0.0158	0.0173
	(0.0076)	(0.0066)
$Migrant * Birth_{1932-36}$	-0.0197	-0.0171
	(0.0097)	(0.0088)
$Migrant * Birth_{1927-31}$	-0.0158	-0.0119
	(0.0081)	(0.0082)
$Migrant * Birth_{1923-26}$	-0.0368	-0.0338
	(0.0100)	(0.0099)
Observations	87,956	86,873
R-squared	0.329	0.330
District FE	Yes	Yes
Other Controls	Yes	Yes
Birth-Year FE	No	No

Notes: The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level. Column 1 controls for a dummy variable that equals 1 if any of the two parents is literate, conditional on living in the same household. Column 2 also adds literacy of each group as a proportion of total district population.

Table A8: Robustness Check: Average age of completion of 10 years of education defined as 18 instead of 16.

Dependent Variable: =1 if completed 10 years of education

	(1)	(2)	(3)
$Migrant*Birth_{1944-51}$	0.0647	0.0494	0.0582
	(0.0198)	(0.0222)	(0.0230)
$Migrant*Birth_{1937-43}$	0.0370	0.0179	0.0185
	(0.0103)	(0.0123)	(0.0125)
$Migrant*Birth_{1930-36}$	0.0245	0.0025	0.0042
	(0.0118)	(0.0131)	(0.0130)
$Migrant*Birth_{1923-29}$	0.0144	-0.0122	-0.0092
	(0.0098)	(0.0101)	(0.0099)
Observations	425,441	425,441	425,441
R-squared	0.053	0.134	0.140
District FE	Yes	Yes	Yes
Other Controls	No	Yes	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-29 age group should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A9: Robustness Check: Average age of completion of
5 years of education defined as 11.

Dependent Variable: =1 if completed 5 years of education

	(1)	(2)	(3)
$Migrant * Birth_{1944-51}$	0.0942	0.0655	0.0731
	(0.0214)	(0.0253)	(0.0266)
$Migrant * Birth_{1937-43}$	0.0670	0.0324	0.0335
	(0.0145)	(0.0190)	(0.0192)
$Migrant * Birth_{1930-36}$	0.0570	0.0158	0.0181
	(0.0176)	(0.0204)	(0.0201)
$Migrant * Birth_{1923-29}$	0.0431	-0.0023	0.0024
	(0.0142)	(0.0170)	(0.0166)
Observations	425,441	425,441	425,441
R-squared	0.067	0.195	0.202
District FE	Yes	Yes	Yes
Other Controls	Yes	No	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-29 and 1930-36 age groups should
have completed 5 years of education before 1947, and they can be
thought of as "pre-event outcomes for the treatment group". Each
coefficient identifies the likelihood of migrants in that specific cohort
for completing an educational milestone, relative to the likelihood of
natives in that same cohort. The p-values are from robust standard
errors clustered at district level.

Table A10: Robustness Check: Average age of completion of
12 years of education defined as 20.

Dependent Variable: =1 if completed 12 years of education

	(1)	(2)	(3)
$Migrant * Birth_{1944-51}$	0.0428	0.0371	0.0410
	(0.0153)	(0.0169)	(0.0176)
$Migrant * Birth_{1937-43}$	0.0151	0.0082	0.0083
	(0.0067)	(0.0079)	(0.0080)
$Migrant * Birth_{1930-36}$	0.0057	-0.0016	-0.0008
	(0.0063)	(0.0075)	(0.0074)
$Migrant * Birth_{1923-29}$	0.0023	-0.0080	-0.0065
	(0.0050)	(0.0048)	(0.0047)
Observations	425,441	425,441	425,441
R-squared	0.030	0.086	0.090
District FE	Yes	Yes	Yes
Other Controls	Yes	No	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-29 age group should have completed 12 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A11: Robustness Check: Adding Literacy and Population Controls from the 1951 Census of Pakistan.

Dependent Variable: =1 if completed 10 years of education

	(1) 1951 Literacy	(2) 1951 Population Ratios	(3) Both
$Migrant * Birth_{1947-51}$	0.0862	0.0848	0.0866
	(0.0174)	(0.0155)	(0.0151)
$Migrant * Birth_{1942-46}$	0.0443	0.0475	0.0505
	(0.0213)	(0.0179)	(0.0187)
$Migrant * Birth_{1937-41}$	0.0210	0.0246	0.0274
	(0.0164)	(0.0136)	(0.0141)
$Migrant * Birth_{1932-36}$	0.0104	0.0134	0.0163
	(0.0162)	(0.0130)	(0.0138)
$Migrant * Birth_{1927-31}$	-0.0003	0.0035	0.0063
	(0.0158)	(0.0132)	(0.0139)
$Migrant * Birth_{1923-26}$	-0.0061	-0.0014	0.0014
	(0.0122)	(0.0097)	(0.0104)
Observations	419,717	419,717	419,717
R-squared	0.134	0.135	0.135
District FE	Yes	Yes	Yes
Other Controls	No	Yes	Yes
Birth-Year FE	No	No	Yes

Notes: The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Column 1 controls for literacy of each group as a proportion of total district population. Column 2 controls for rural and urban population of each group as a proportion of each respective group's district population. Column 3 controls for both. Each coefficient identifies the likelihood of migrants in that specific cohort for completing an educational milestone, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.

Table A12: Migrants in Urban Areas

Proportion of Urban Population		
	(1)	(2)
Urban		-0.7612
		(0.0345)
Migrant * Urban		0.1705
		(0.0307)
Migrant	0.0000	
	(0.0000)	
Observations	554	554
R-squared	0.000	0.672
District FE	Yes	Yes
Other Controls	No	No

Notes: Each coefficient identifies the proportion
of migrants living in urban areas.

Table A13: Migrants' Social Support in the Form of Living
with Extended Family

Extended family as social support	
	(1)
	Dependent Variable:
	= 1 if living with extended family
$Migrant * Birth_{1947-51}$	-0.0042
	(0.0107)
$Migrant * Birth_{1942-46}$	0.0111
	(0.0096)
$Migrant * Birth_{1937-41}$	0.0072
	(0.0048)
$Migrant * Birth_{1932-36}$	0.0007
	(0.0043)
$Migrant * Birth_{1927-31}$	-0.0042
	(0.0063)
$Migrant * Birth_{1923-26}$	0.0164
	(0.0049)
Observations	388,464
R-squared	0.341
Individual Controls	Yes
Hh Controls	Yes
District Controls	Yes
District FE	Yes

 Notes: The migrants in the 1923-26 and 1927-31 age groups should have completed 10 years of education before 1947, and they can be thought of as "pre-event outcomes for the treatment group". Each coefficient identifies the likelihood of migrants in that specific cohort for living with their extended family in the same house, relative to the likelihood of natives in that same cohort. The p-values are from robust standard errors clustered at district level.