

What is the role of Pentecostalism on OECD Student Migration in Anglophone Africa ?

## **Abstract**

This study explores the impact of identifying with Pentecostalism on international education among households in two Anglophone African countries whose children have at least a secondary school education. The goal is to understand the specific influence of Pentecostalism on international education and migration independent of its local influence using propensity score matching that allows the comparison of similar Pentecostal and non-Pentecostal households. The findings show that Pentecostal households have a greater chance of pursuing international education and migration in OECD countries. This research contributes to the contextualization of the systematic differences between skilled migrants in OECD countries and similar cohorts left behind in Anglophone Africa, emphasizing the role of household choices in migration decisions.

**Keywords:** Pentecostal Religion; College-ready Student; Social Origin; International Migration.

## Replication Code & Data

For the replication data & codes, please refer to the [OSF Folder](#).

- The "cleaned" data is stored in single data frames (pentecostal.csv file)
- The code that loads the data and runs the analyses for the main specifications is `Pentecostal_Analysis.R` file.
- The code for cleaning the data is `Pentecostal_DataCleaning_Codes.R` file.
- The raw data from the World Bank Migration Household Survey for [Nigeria](#) and [Kenya](#) is also included.

## 2 Chapter Two

### 2.1 Introduction

Previous research has shown that the sociocultural context of households plays a role in the outcomes of their children (Filmer and Pritchett, 1999; Mein et al., 2020; Sabatier, 2008; Stocke, 2007). Traditional theories of social mobility presuppose that parents' social and economic disadvantages can lead to the intergenerational transmission of inequality and that disadvantaged households are comparatively deprived of educational opportunities. These studies often adopt Bourdieu's concepts of status passage and habitus to support the claim that the mental schemes and disposition of specific households and social groups can make them better or less positioned to attain favourable status for their members such as international education (Bommess and Kolb 2006; Nohl et al. 2006; Sezgin 2008) that are highly valued in the Global South. Despite the recognition of the distinct characteristics of international migrants and students in past studies such as higher education and skills (Borjas 1987; Feliciano 2005; Grabowska and Jastrzębowska 2019), the factors and contextual and household effects driving this selectivity have not been thoroughly studied.

In the context of international education and migration, traditionalists argue that middle and upper-class parents have an advantage over other social classes due to their superior knowledge of transnational opportunities and their motivation to seek the best education for their children (Gerhards et al., 2017). However, while these factors are essential, access to international education is not always limited to a household's resources alone. Cultural capital, which includes the requisite information, networks, resources, and motivation required for social mobility can be obtained through affiliation with social groups. This is particularly relevant in communitarian societies common in the Global South. Affiliation with social groups that possess cultural capital can provide individuals with the necessary resources and information to migrate or seek education abroad. It's crucial to perceive cultural capital in its functional form as a particular form of cultural capital that can be valuable in facilitating specific actions but useless or even harmful to others (Coleman, 1988).

The objective of this study is to investigate the potential impact of Pentecostal religious affiliation, considered a significant source of cultural capital among Anglophone households in Africa, on the international migration of African migrants in OECD countries. The goal is to seek a deeper understanding of how Pentecostalism influences migration decisions for both educational and non-educational purposes, in comparison to non-migrants.

I have selected households of college-ready migrants, which I define as households with individuals who have completed at least a high school education. For instance, in Nigeria's 2010 Migration House Survey, utilized for this study, data collection was limited to families with at least one child above the age of 15.

I adopt a rationalistic approach and combine it with a focus on the specifics of the Global South and the decision-making mechanisms of households (Breen and Goldthorpe 1997; Coleman 1988; Fasang et al. 2014). The social background of skilled African na-

tionals residing in OECD countries has received little attention despite its potential impact on African migrants and returnees.

I investigate the role of Pentecostalism on migrants who travel mainly for educational and non-educational purposes. Pentecostalism in the Global South is known to propel educational values and encourage members to participate in capitalist practices. Critics often refer to Pentecostal churches as "prosperity" churches because of the strong emphasis placed on capitalism, members acquiring new skills and seeking global influence, which the religion cites as a core value of Christianity (Nel, 2018). It can promote liberal values because the Pentecostal religion is perceived to have a lesser restrictive institutional structure, making it appealing to young people (Menjivar, C. 1999).

The core message of African Pentecostalism, partly motivated by its postcolonial history, centres around resistance to both traditional Christian and non-Christian religions. The religion is also known for its continuous organization of educational resources through programs, workshops, and seminars on self-empowerment, although it should be said that the information and applications for transnational education are primarily obtained from the Internet (Nel, 2018). Members are encouraged to share and teach beneficial information that promotes economic progress and education, offering information premiums for education opportunities. Through these attributes, Pentecostalism can serve as an important source of normative educational value.

I further examine whether the Pentecostal religion has strong connections to ideals that support development, globalization, and transnationalism beyond its influence on international education (which is migration for non-education purposes). Previous research (Peggy Levitt, 2003; Freeman, 2012) has shown a high correlation between these factors and others have focused on the African Pentecostal church's economic development since the 1970s (Turner, 1980). Weberian political sociologists have suggested that religious values can shape internal development and openness to external views (Bendix 1998; Nunziata & Rocco, 2018; Kanas, A., & Müller, K, 2021), likely due to the religion's network structure and emphasis on self-responsibility (Van Dijk, 1997). Pentecostalism may be a significant source of cultural capital for households seeking international migration, including international education, in Anglophone Africa.

Ethnic wealth has been hypothesized as a source of network capital. Network capital in this framework refers to the capital available to a member of a group that gives them an informational and resource advantage when accessing educational opportunities. Studies on various communities also indicate that human capital can be derived from ethnic wealth (Montgomery, 1991). Research on migrants in developing countries shows that the net capital required for migration is mainly sourced through family experiences, kinship and social networks and that the migration of one household member improves the chances of other members (Akanle and Orobome, 2019; Root and De Jong 1991).

However, further studies on the mechanisms of the relationship between kinship networks on migration suggested that a positive effect of kinship or ethnic affiliation may not persist across generations. For instance, studies conducted in multi-ethnic societies in the Global South reveal that ethnic groups with high levels of religious pluralism tend to invest in other forms of social capital (Dev et al. 2016). Additional evidence from three sub-Saharan African countries suggests that among African traders, within-

market network capital facilitates information sharing and trust and has a greater impact than generic ethnic affiliation (Fafchamps, 2003). This implies that households derive cultural capital from a wide range of network possibilities, often driven by information mobilization within each network. Ethnic affiliation can positively correlate with educational outcomes when in-group shared norms, values, information, and resources concerning education are effectively mobilized (Zhou, 1997). The information costs are a key measurement of the disparity in social class between relatively well-educated and poorly-educated parents which Pentecostalism and other network groups often seek to bridge (Ambler, 1994).

Additionally, urbanisation and its pecuniary opportunities are another frequently cited push factor for migration. However, an urbanisation paradox can occur. Though most international migrants in developing countries come from cities due to their higher concentration of educational infrastructures, there are mobility transitions that need to be considered (Lerch 2020). Some authors have argued that although social institutions that promote education such as Pentecostalism are known as an urban phenomenon, there are transitions that can promote a rural resurgence (Alvarsson and Segato 2003). As societies reach advanced stages of urbanisation, emigration becomes less important and there is a spillover effect of urbanity in rural areas; this is termed the rural exodus. There has also been a rise of rural Pentecostalism in many areas of Africa and Latin America that has attracted members interested in combining modernity with traditional ways of life (Alves 2018; Chandler 2007). This suggests that the opportunity structure for education attainment and migration prospects can be achieved outside of cities. This paper will focus less on the effects of urbanization on international education and migration.

Though Nigeria and Kenya are multi-religious countries, it is important to stress that Pentecostalism (a modern offshoot of classical Protestantism) is a relatively new religion in these regions. Pentecostalism in West Africa is believed to exist within the same Protestant tradition and rhetorics. Adherents of classical Protestantism, who were often understood as ascetic, mostly came to Pentecostalism (or new Pentecostalism) in the early 70s and 80s. There are three main reasons the current structure of the Pentecostal religion in Anglophone Africa can place adherents in social positions that drive interests and resources for internationalism.

In this paper, I highlight the social drivers by which social origin influences transnational migration and education including and more importantly whether these factors differ from those that are found in non-migrant households. I delve into the under-explored area of the contextual attainment and social origins of highly skilled sub-Saharan African migrants to the Global North at the turn of the 21st century. I investigate the role social origins play in increasing opportunities for selectivity and how it may influence the displacement of other historically significant social origins. Studies on habitus, social class, and status can often be confusing and contradictory. Previous research has not fully focused on these mechanisms and has instead used generalized concepts rather than examining the specific methods by which households make the best decisions based on their available social resources. In African countries, it is likely that households seek out networks and information that offer social opportunities through intermediary institutions such as religion. I use propensity matching, a sophisticated statistical technique, to evaluate these effects by comparing data from household samples in Nigeria and Kenya of migrants and non-migrants.

## 2.2 Previous Research

### 2.2.1 Pentecostalism and Education in Anglophone Africa

Christianity and the Pentecostal religion in Africa share postcolonial roots, as they were introduced by colonialists as a tool for educating and socializing the population. Missionary schools, such as Fourah Bay College in Sierra Leone, played a pivotal role in spreading both religions and education throughout the region and maintained connections with schools in England (Bangura, 2020). Church leaders within Pentecostalism denominations frequently encourage their members to pursue Western education as a means of achieving social mobility beyond their upbringing. The historical significance of both religions has led to the development of social infrastructure and networks for education in Africa.

The missionary activity of the Pentecostal religion had a positive long-term impact on educational attainment in most sub-Saharan African countries though the traditional Catholic missions had a small effect on education (Nunn et al. 2014). This has also promoted the growth of social interactions and networks among Pentecostal members, which has historically played a role in stimulating interest in the development of education in various countries (Glaeser and Sacerdote, 2008; Guiso et al., 2003).

Western education and the preference for foreign acculturation are rooted in the Christian religion, which provides a foundation for gaining Westernized cultural capital. This may encourage interest in international student migration with the effect traced back to historical social contexts (Lindley 2002; Roth 2020).

Additionally, Pentecostals currently constitute a significant portion of educated Christian groups and have become a dominant social group in these regions (Obadare, 2006). For example, a 10-country survey by Pew Research found that Nigerian Pentecostals are much more likely to have completed some form of post-secondary education than educated Christians in the United States and Chile, where this faith is also practised (Pew Research, 2006). Nigeria is a country where Christians and Muslims have a nearly equal share of the population, however, 61% of Muslim adults have no formal schooling compared to 26% of Christians. The reports also indicate that the education gap between Christians and Muslims in sub-Saharan Africa is among the largest intra-regional gaps in the world.

Another key argument for the relative advantage of Pentecostalism is its dominant presence in various spheres of Anglophone African societies, for example, particularly in Nigeria's educational landscape. This may partially explain the emergence of private universities owned by Pentecostal institutions in the early 21st century in Nigeria and after the country's change to a democratic government in 1999, as depicted in Figure 2.1. It is unclear whether these universities in Nigeria were established to compete with middle-class schools overseas, but they are often appealing to wealthier households who lack sufficient information, social networks, and cultural capital required for obtaining foreign admission for their children.

Numerous private universities were established in Kenya dating back to the mid and late 90s, including institutions like Strathmore University, Catholic University of

Eastern Africa, Kenya Methodist University, Africa International University, and Presbyterian University. Many more universities were chartered in the 2000s, including Aga Khan University and Africa International University. These universities were influenced by various religious affiliations, including Orthodox churches, and evangelical missions (Pentecostal denominations), while others were unaffiliated.

Like other forms of cultural capital, Pentecostalism can serve as a dominant capital, when other forms of capital become fragmented, particularly if these alternative forms are less likely to facilitate the assimilation necessary for household advancement, such as the need for children to attend a transnational school.

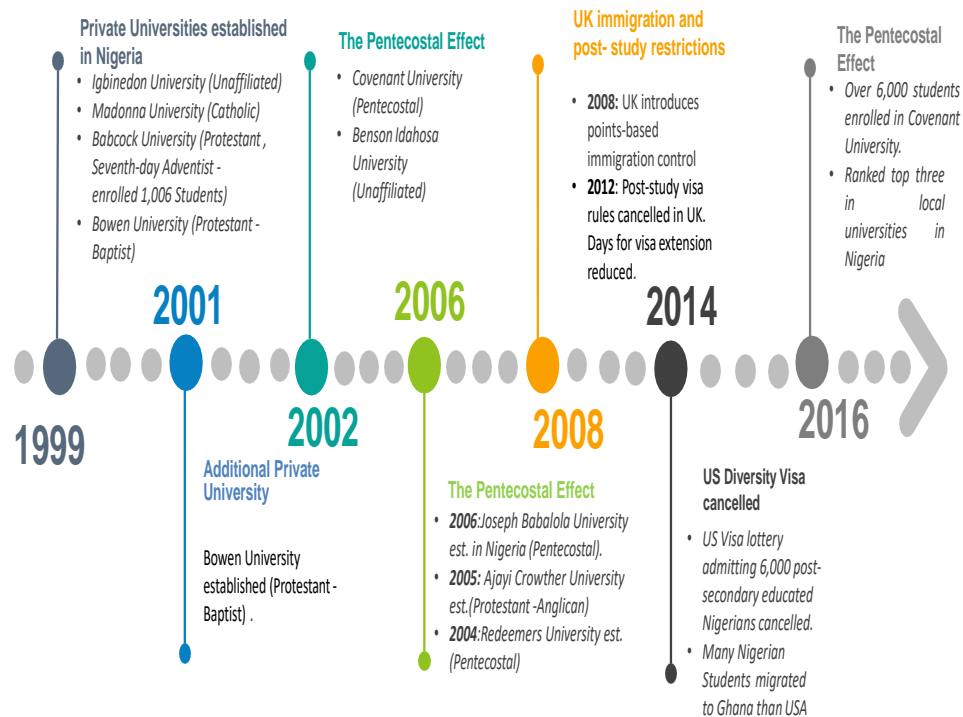


Figure 2.1: Timeline: UK/USA Student Policies and Pentecostal Universities in Nigeria after 1999. Data Sources: Website of all Institutions Mentioned; U.S. Department of State

In addition, the Pentecostal religion promotes liberal values and has a less restrictive institutional structure that attracts the migrating young population (Menjivar, 1999). Carbone (2017) argues that Africa's young population and the overall effect of development may have led to increased migration in recent decades, rather than individuals



seeking a "European Eldorado." Pentecostal networks are composed of members who encourage each other to activate their "spiritual gifts," embrace economic liberalism and individuality, and work to improve their social status (McCain 2013).

The Pentecostal religion often promises prosperity that is congruent with the failing financial realities of many African households who regard traditional beliefs as rigid and outdated (Freeman, 2012). Previous studies that often adopt Bourdieu's concepts of cultural capital, status passage and habitus argue that the mental schemes and disposition of specific households and the social group they belong to can make them better or less positioned to attain favourable status such as that international migration is likely to provide for citizens of Anglophone Africa (Bommes and Kolb 2006; Nohl et al. 2006; Sezgin 2008). Pentecostalism became attractive to households in Anglophone Africa as it offers an opportunity to acquire a new identity that can be strategically selected when innate or indivisible social origins or classes, such as ethnicity, do not provide the necessary cultural capital. Third, the emphasis on thrift and piety in certain religions, such as Pentecostalism, may also play a role in international migration (Marshall, 2009; Freeman, 2012). It is commonly believed that Pentecostalism promotes piety which may be an impetus for the discipline and resources required to seek international opportunities (Berger 2010).

Studies have shown that children's life paths are largely determined by their parents' social class (Breen and Goldthorpe 1997; Filmer and Pritchett 1999; Mein et al. 2020; Sabatier 2008; Stocke 2007). In this context, certain households may choose to join Pentecostal churches to gain access to a new form of capital. A robust framework is needed to account for these contextual factors, including the effects of a household's religious choices on international migration (Van Hear et al, 2018) and the level of religiosity or adherence (Barro & McCleary 2003). However, the impact of these contextual factors on international migration may be limited to factors that are similar among migrants and non-migrants and the specific role of religion in transnationalism among migrant groups remains to be explored. Ann Swidler's (1986) influential work emphasizes the importance of critically examining cultural components and understanding "how" they are used to construct strategies of action. Household members can access social resources through rational choices and connections with status-based groups.

*In this regard, I argue that identifying with Pentecostalism increases the chances for student migration in Anglophone Africa (Nigeria and Kenya), controlling for other social and economic household capital (Hypothesis 1).*

## 2.2.2 Pentecostalism (vs. Other Religions) and International Migration in Anglophone Africa

Different religious denominations may generate different forms of cultural capital that can foster openness and internationalism. Many African Pentecostals often focus on achieving worldview and prominence such as Winners Chapel, Mountain of Fire & Miracles, and The Redeemed Christian Church of God which have many branches in Africa and Europe (Nel, et al 2018). A study by Daniel Joseph suggests that moderate Protestant denominations, commonly referred to as Pentecostals in Anglophone African re-

## 2.3 Data and Methods

Comparing households with migrants and non-migrants entails unique empirical challenges in approximating the effect of social origin on educational migration. Most data available on migration is insufficient and does not capture household differences between migrant and non-migrant households within the same sample. Household surveys in sub-Saharan Africa do not ask questions about international migration history. Yet, the Migration and Remittance Survey Household Survey conducted in 2009 and 2010, a cross-national survey in six African countries, captures the demography of educational migrants and non-migrant households within the same period.

I adopted Kenya and Nigeria because they are both Anglophone countries and also because the respective surveys include questions on Pentecostalism. The data contains categories of non-migrants, internal migrants and international migrants. Table 2.1 below presents a definition of the three groups in the context of this study.

Table 2.1: Dependent Variables: Groups and Their Definitions

Group	Definition
Non-Migrants	Individuals or households who have NOT migrated to an OECD Country (Base Category)
Migrants for Educational Purposes	Individuals or households who have migrated to pursue educational opportunities in an OECD country.
Migrants for Non-Educational Purposes	Individuals or households who have migrated to an OECD country for reasons other than education, such as work or family reunification.

I compared the results from OECD migrants to the other two categories which include those who migrated for non-education purposes and non-migrants (non-international migrants or stayers). This means that stayers also consisted of households of those who migrated internally to at least another village or an urban area for at least six months before the survey. This gives an average representation of the national average (excluding international migrants).

### 2.3.1 Study Sample

The survey was conducted in 2009, taking into account the demographic and political characteristics of the migrant sample. Data collection was carried out from October to November 2009 in Kenya and completed in September 2009 in Nigeria. It involves a stage random sampling method. The data collection focused heavily on households with migrants someone who had been aged 15 to 59 at the time of migration. In other words, households with children under age 15 or persons aged 60 were delisted from migrants and non-migrant households. This goal is to make migrant and non-migrant groups as comparable as possible.

Regarding data collection, data in Nigeria were collected from both low and high-incidence migration states in a two-stratum exercise. In total, 18 Nigerian states (16 in the South and 2 in the North) were included in the high migration incidence stratum,

while 19 Nigerian states (18 in the North and 1 in the South) were classified into the low migration incidence stratum. Additionally, there was a near-balanced distribution of rural and urban areas in the sample but a concentration in Southern Nigeria. Despite this Southern concentration, both internal migrant and non-migrant households are expected to be accounted for via weighting. In Kenya, 17 out of 69 districts were selected, with priority given to districts with the largest concentration of international migrants, followed by the selection of clusters with the highest concentration of international migrants. The sample had a fair distribution of rural and urban divisions, with 953 urban and 989 rural participants drawn from 51 rural and 40 urban clusters.

I restricted my samples to respondents who reported to be parents of the migrant (father or mother of the migrants). I focused on migrants who travelled to 17 OECD/advanced countries and their primary motivation for travelling was education and work. These two categories are often intertwined in literature and referred to as labour migrants.

The data variables consist of household rural/urban residency status, the reason for migration, place of migration, education before migration, household head (or proxies) years of completed education, household access to assets, religion, expenditure on education, health, remittances and other variations across these variables. My dependent variable was a binary outcome of skilled transnational migrants vs. in-country migrants.

### *Independent Variable*

1. **Identifying with a religion:** This constitutes the primary independent variable, structured as a factor-level variable encompassing its primary subdivisions across the three countries. These subdivisions include the category of "Others," which incorporates Islam. It was necessary to consolidate observations in the Islam and other religions categories due to their limited prevalence, resulting in less intuitive outcomes (refer to Table 2.2 and Table 2.3 for summary statistics on the percentage of other religions).

Similarly, it was less necessary to make a distinction between Protestants and Pentecostals as their usage among adherents in the region is believed to remain ambiguous. Protestants in West Africa often consider themselves as Protestants.

### *Control Variables*

**Ethnicity** also consists of the 14 main ethnic groups earlier identified in both countries and others with lower observations were groups as others.<sup>1</sup>

**Parental education** is a categorical variable that was coded as none, primary<sup>2</sup>, secondary<sup>3</sup> vocational<sup>4</sup>, or higher (which includes college and higher degrees. Though Migration and Remittance Survey Household Survey data include questions on years of

---

<sup>1</sup>Yoruba, Ibo, Luhya, Kalenjin, Kamba, Girriama, Embu, Kikuyu, Kisii, Luo, Ogaden, Somali, Pokomo and Others

<sup>2</sup>Primary education includes post-primary technical.

<sup>3</sup>Secondary education includes post-secondary diploma

<sup>4</sup>Vocational includes post-secondary technical.

schooling (interval-level), I discounted this variable because there was a lot of missingness in the Kenyan data.

**Household size** This data measures the number of current house members by excluding members not living within the home at the time of the survey including internal and international migrants. Large household sizes can be advantageous for families when they need to recycle educational resources and information for different children. In a recent study of 86 surveys from 34 countries in sub-Saharan Africa, researchers found a positive effect of family size on schooling, where families with 3+ children are relatively richer (Alidou and Verpoorten 2019).

**Urban-rural residence:** Theories on contextual attainment and origin of migrants have focused on the pre-migration residence. This variable was coded as a binary with 1 as urban and 0 as rural.

**Expenditure Utilities:** Household expenditure on utilities signals the “capacity” of a household in providing their members with electricity, water and other utilities which can be indexed for household wealth. To harmonize the monetary value across the two countries, I converted the value to USD in each country’s exchange rate in 2009<sup>1</sup>. A similar procedure was completed for all variables of monetary values in this paper.

**Computer Expenditure:** This consists of the amount spent by the household on computer-related expenditures.

**Occupation of HH head::** There are multiple occupations in the data which I divided into three classes (Low, Mid and High) based on common knowledge<sup>2</sup>

Other controls include the sex of the household head in all three groups.

## 2.4 Analytical Strategy

### Models

The main models are defined as follows:

#### For International Migration Purpose 1 (Education Only):

$$\text{Odds Ratio} = \frac{P(\text{MigrationPurpose}_i = 2)}{P(\text{MigrationPurpose}_i = 0)} = \frac{\frac{\exp(\beta_{2j}X_i)}{\sum_{k=0}^2 \exp(\beta_{2k}X_i)}}{\frac{\exp(\beta_{0j}X_i)}{\sum_{k=0}^2 \exp(\beta_{0k}X_i)}}$$

---

<sup>1</sup>USD to Kenya Shillings in 2009 was 68.309 and USD to Nigerian Naira in 2009 was 127.46.

<sup>2</sup>High: Managers, technicians and associate professionals, professionals.

Mid: Clerical support workers, service and sales workers, agricultural, forestry and fishery workers, craft and related trades workers.

Low: Plant and machine operators and assemblers, elementary occupations, and casual labourers.

### For International Migration Purpose 2 (non-Education):

$$\text{Odds Ratio} = \frac{P(\text{MigrationPurpose}_i = 1)}{P(\text{MigrationPurpose}_i = 0)} = \frac{\frac{\exp(\beta_{1j}X_i)}{\sum_{k=0}^2 \exp(\beta_{1k}X_i)}}{\frac{\exp(\beta_{0j}X_i)}{\sum_{k=0}^2 \exp(\beta_{0k}X_i)}}$$

The numerators reflect the odds that an observation  $i$  belongs to category 1 (Education Only) or 2 (Non-Education), determined by the exponentials of coefficients  $\beta_{1j}$  and  $\beta_{2j}$ , along with the vector  $X_i$ . The denominator ensures that the calculated odds are scaled proportionally to the cumulative exponentials of  $\beta_{0j}$ ,  $\beta_{1j}$ , and  $\beta_{2j}$  for all categories (0, 1, and 2), ensuring that they sum up to 1. This normalization ensures that the odds ratio correctly accounts for the influence of predictor variables on the different categories.  $X_i$  represents the set of predictor variables for observation  $i$ .  $P(\text{MigrationPurpose}_i = 0)$  represents non-migrants.

#### Predictors:

$$\begin{aligned} X_i = & \text{Religion}_i\beta + \text{Ethnicity}_i\sigma \\ & + \text{Computer}_iH + \text{Urban}_i\lambda \\ & + \text{ParenEdu}_i\alpha + \text{HHSize}_i\mu \\ & + \text{HHExpenditure}_i\sigma + \text{SexofMigrant}_i\Psi \\ & + \text{Occupation}_i + \text{Cohort}_i\delta + e_i\text{.....}(1) \end{aligned}$$

The effect of individual religion is represented by  $\beta_{1j}$  and  $\beta_{2j}$  with Islam as the base religion which represents the main predictor for these models.  $\sigma_i$  represents the effect of all ethnicities, with Hausa ethnicity as the reference category (one of the least educated groups in the region), similar to when the rural residence is the reference category.  $H\alpha_i, \mu_i$  and  $\sigma_i$  represent the effects of owning a computer, parental education, household size, and a vector of household expenses (utilities and education).  $\Psi$  and  $\Omega$  are the effects of the Migrant's Sex and Occupation of the household head at the time of migration.  $\delta$  is the effect of each cohort by age, gender and education at the year of the international migration. The main focus is the effect of religion, represented by  $\beta_i$ .  $e_i$  represents the error term. I converted income-related questions to 2010 USD <sup>1</sup>.

I utilized the "mice" package in R to impute missing values, generating multiple plausible imputed datasets based on the available data. I made the assumption that the likelihood of a value being missing is random and unrelated to its actual value or any other variables in the dataset.

The final dataset exclusively consisted of households with college-ready children, representing households with at least one child with vocational education or higher

---

<sup>1</sup>The conversion rate was 68.309 for Kenya and 127.46 for Nigeria. For the questions on expenses on utilities, food and education.

qualifications at the time of the survey who had migrated to OECD countries. The initial sample size prior to matching was 10,535 households, but it was subsequently reduced to 5,079 after excluding migrants who had relocated to non-OECD countries. Notably, a significant number of Kenyan migrants had primarily moved to neighbouring countries such as Uganda.

In all, there are three models. Model (1) is the sample after completing the propensity score. I included Model (2) as a robustness check that uses the unmatched sample, and the Nigeria-only Model (3) uses the matched sample on the Nigeria sample only. The need for a Nigeria-only model is explained in the findings section. All models have the same covariates.

I used logistic regression to determine the odds of selection and converted them to probabilities using  $(\text{odds}/(1+\text{odds}))$ . We centred the variables so that the predictors have a mean of 0. This makes it easier to interpret the intercept term and coefficients as the expected value of  $Y_i$  when the predictor values are set to their means.

### 2.4.1 Propensity Score Matching

Because Pentecostalism is likely to influence both local and international education in the same way, it is important to separate the effect of Pentecostalism on international migration from its effect on local education. To estimate the probability of selection, I used propensity score matching while minimizing reliance on potential outcomes. The propensity score was based on variables that affect the outcome but are less likely to be influenced by the responses of households selected for international migration or education.

The predictors utilized in this analysis included factors such as residency (urban/rural), age, ethnicity, and the individual's employment status before leaving their home for migration. This preprocessing allowed for the greater similarity between the groups of Pentecostal and non-Pentecostal as presented in Figure 2.2. The dependent variable during the matching is the binary outcome of affiliation with Pentecostalism compared to other religions. .

From the regression results, three factors demonstrated statistical significance in relation to Pentecostalism: residency, ethnicity, and the age of the household's focal person. Subsequently, these three significant predictors were employed for matching using the *Matchit* function in R.

The matching method employed was the nearest neighbour, which paired instances having the closest predictor values between Pentecostal and non-Pentecostal households. This approach resulted in the removal of observations that lacked suitable matches and migrants. Following the matching process, the total number of observations decreased from 5079 to 4,257. The balance plot in Figure 2.2 reveals that a few variables were notably impacted by the matching process and somewhat suggests that the matching may not be required and the mean differences for most variables didn't change significantly. Nonetheless, I apply both matched and unmatched samples for robustness

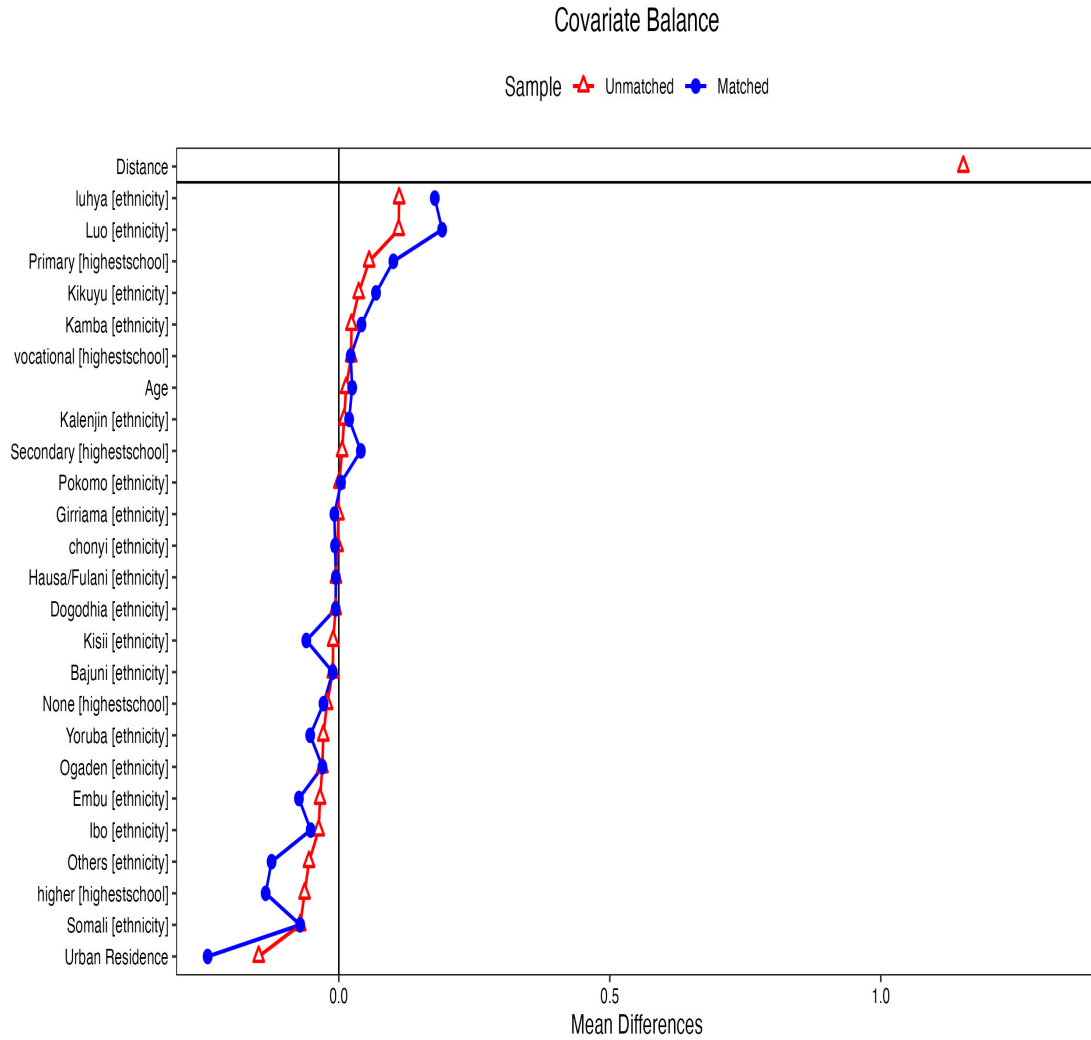


Figure 2.2: Balance Plot for Pentecostal Affiliation

## 2.5 Results

### 2.5.1 Descriptive Statistics

In this section, I present summary statistics for households with children who migrated for educational purposes, non-educational purposes and non-migrants in two countries (Nigeria and Kenya). All households were restricted to those that have college-ready students. Again, college-ready households refer to households with migrants who have at least a high-school certificate and similar households in the non-migrant population at the time of migration. Results are shown for samples before matching.

#### *Summary Statistics, 2010 Migration Survey*

##### *Religion*

I will begin with descriptive statistics concerning the proportions of Pentecostals, Catholics,

and individuals adhering to other religions in both countries. Tables 2.2 and 2.3 illustrate that Pentecostalism holds the highest prevalence among households with international students among Nigerian Households (62 percent), while Catholicism dominates among households with international students in Kenya (69 percent). However, among non-migrants, Pentecostals represent the majority in both countries, constituting 49 percent in Nigeria and 65 percent in Kenya. This implies that there is a higher percentage of international students in Kenya who are Catholic, while international students in Nigeria are more likely to be Pentecostal, even though both countries have a higher proportion of Pentecostal non-migrants than Catholics. Other religions account for between 10-15 percent in Kenya and 13-27 percent in Nigeria among the three groups (households of non-migrants, non-educational OECD migrants, and OECD-educated migrants).

Within households with non-educational OECD migrants, which include households whose children migrated for non-educational purposes, 50 percent of them are Pentecostals in Nigeria, and 67 percent are Pentecostals in Kenya. In contrast, only 29 percent and 18 percent of them are Catholics in both countries, respectively. In other words, aside from Catholics among OECD student migrants, most other OECD migrations for any purpose originate from Pentecostal households.

Table 2.2: Summary Statistics of NIGERIAN Households with - Full Sample without matching). Non-migrants, OECD non-Education Migrants and OECD Education Migrants(2009)

Characteristic	N	Non-Migt, N = 591 <sup>I</sup>	Non-Edu, N = 216 <sup>I</sup>	Edu, N = 90 <sup>I</sup>
<b>Religion</b>	897			
Others		160 (27%)	45 (21%)	12 (13%)
Catholic		139 (24%)	62 (29%)	22 (24%)
Pentecostals		292 (49%)	109 (50%)	56 (62%)
Urban	897	346 (59%)	133 (62%)	53 (59%)
<b>Ethnicity</b>	895			
Hausa/Fulani		19 (3.2%)	1 (0.5%)	2 (2.2%)
Yoruba		193 (33%)	97 (45%)	31 (34%)
Ibo		150 (25%)	62 (29%)	35 (39%)
Others		228 (39%)	55 (26%)	22 (24%)
<b>Highest Parent Edu</b>	765			
None		86 (17%)	18 (9.9%)	17 (21%)
Primary		113 (22%)	35 (19%)	13 (16%)
Secondary		167 (33%)	58 (32%)	15 (19%)
Vocational		0 (0%)	0 (0%)	0 (0%)



Higher		138 (27%)	70 (39%)	35 (44%)
Household Size	897	5 (4, 7)	5 (4, 7)	5 (4, 6)
<b>HHH<sup>1</sup> Current Occupation</b>	897			
High		246 (42%)	104 (48%)	51 (57%)
Low		61 (10%)	19 (8.8%)	9 (10%)
Mid		284 (48%)	93 (43%)	30 (33%)
vocational		59 (10.0%)	12 (5.6%)	5 (5.6%)
Exp. on Education	897	200 (67, 499)	279 (113, 532)	496 (146, 788)
Exp. on Utilities	897	32 (16, 60)	35 (17, 67)	40 (20, 80)
Own a Computer	897	110 (19%)	69 (32%)	37 (41%)

<sup>1</sup>n (%); Median (IQR). All three groups consist of comparable households with at least one child between the age of 15-50.

Table 2.3: Summary Statistics of KENYAN Households - Full Sample without matching). Non-migrants, OECD non-Education Migrants and OECD Education Migrants(2009)

Characteristic	N	Non-Migt, N = 4,187 <sup>1</sup>	Non-Edu, N = 88 <sup>1</sup>	Edu, N = 242 <sup>1</sup>
<b>Religion</b>	4,517			
Others		391 (9.3%)	13 (15%)	0 (0%)
Catholic		1,056 (25%)	16 (18%)	166 (69%)
Pentecostals		2,740 (65%)	59 (67%)	76 (31%)
Urban	4,517	1,817 (43%)	38 (43%)	153 (63%)
<b>Ethnicity</b>	4,387			
Somali		85 (2.1%)	0 (0%)	0 (0%)
Bajuni		19 (0.5%)	8 (9.3%)	0 (0%)
Chonyi		21 (0.5%)	0 (0%)	0 (0%)
Dogodhia		21 (0.5%)	0 (0%)	0 (0%)
Embu		140 (3.4%)	0 (0%)	56 (23%)
Girriama		43 (1.1%)	4 (4.7%)	0 (0%)

<sup>1</sup>Household Head

Kalenjin		106 (2.6%)	0 (0%)	24 (9.9%)
Kamba		290 (7.1%)	2 (2.3%)	24 (9.9%)
Kikuyu		924 (23%)	41 (48%)	102 (42%)
Kisii		517 (13%)	22 (26%)	30 (12%)
Luhya		828 (20%)	7 (8.1%)	6 (2.5%)
Luo		835 (21%)	0 (0%)	0 (0%)
Ogaden		37 (0.9%)	0 (0%)	0 (0%)
Pokomo		31 (0.8%)	0 (0%)	0 (0%)
Others		162 (4.0%)	2 (2.3%)	0 (0%)
<b>Highest Parental Edu</b>	4,439			
None		762 (19%)	14 (16%)	9 (3.7%)
Primary		1,408 (34%)	14 (16%)	48 (20%)
Secondary		1,005 (24%)	21 (24%)	75 (31%)
Vocational		733 (18%)	9 (10%)	39 (16%)
Higher		203 (4.9%)	28 (33%)	71 (29%)
Household Size	4,517	5 (4, 7)	4 (4, 5)	5 (3, 7)
<b>HHH Occupation</b>	4,517			
High		1,431 (34%)	35 (40%)	99 (41%)
Low		621 (15%)	15 (17%)	44 (18%)
Mid		2,135 (51%)	38 (43%)	99 (41%)
Exp. on Education	4,517	166 (43, 409)	240 (50, 947)	278 (50, 404)
Exp. on Utilities	4,517	68 (25, 164)	227 (57, 303)	106 (15, 278)
Own a Compu	4,517	689 (16%)	49 (56%)	93 (38%)

<sup>1</sup>n (%); Median (IQR). All three groups consist of comparable households with at least one child between the age of 15-50.

#### *Parental Education*

The descriptive results indicate that international students in Nigeria are more likely to have parents with at least a college degree compared to non-migrant households, but this trend is not observed in Kenya. Specifically, in Nigeria, 44 percent of parents of children with international students hold at least a college degree, whereas, in Kenya, the predominant level of education among parents of international students is in secondary school at 31 percent, followed closely by parents with post-secondary certificates at 29 percent.

The fact that the majority of parents of post-college transnational students have completed at least a secondary education provides support for the first-generation education theory, which posits that first-generation transnational students are more likely to attain an education that is at least equivalent to or higher than the level of education their parents have received (Choy 2001; Ishitani 2006; Pascarella et al. 2004; Stephens et al. 2012; Woosley and Shepler 2011).

#### *Ethnic Group Demographics*

The Igbo and Yoruba ethnic groups collectively constitute 73 percent of the households with Nigerian international students in the sample. In contrast, within the non-migrant households, the Igbo make up only 25 percent, the Yoruba represent 33 percent, the Hausa account for 3.2 percent, and other ethnic groups constitute the remaining 39 percent (see Table 2.2). It's important to note that these percentages do not align with the typical distribution of ethnic groups in Nigeria. This disparity arises due to the survey's over-representation in regions with higher migration rates. However, this discrepancy has minimal implications for the findings, as the proportion of the control group, non-migrants, is considerably higher and closer to the expected average.

In Kenya, as indicated in Table 2.2, the Kikuyu and Embu ethnic groups dominate the households with international students, comprising 65 percent of the international student population. When comparing international students to non-migrants among the five major ethnic groups, we observe the following: Kikuyu (42 percent vs. 23 percent), Embu (23 percent vs. 3.4 percent), Luo (0 percent vs. 21 percent), Kisii (12 percent vs. 13 percent), and Luhya (2.5 percent vs. 20 percent). Notably, the Embu and Kikuyu ethnic groups exhibit a smaller proportion among non-migrant households but a larger presence among international students. This suggests that certain ethnic groups may exhibit a stronger motivation to migrate as students.

#### *Economic Factors*

To delve further into understanding the relationship between frequently discussed economic factors influencing migration, such as household well-being and choices, I investigate household expenditures on education and utilities. Descriptive findings, as outlined in Table 2.2, reveal that households with international students, as one might anticipate, allocate a higher budget to education compared to both non-educational migrants and non-migrant households in both countries. In Nigeria, households with international students expend an average of \$496 on education every six months, whereas non-migrant households spend \$200 on average during the same period. In contrast, Kenyan households with international student migrants allocate an average of \$278 to education over a six-month span, in comparison to \$166 spent by non-migrant households.

Similar trends in expenditure, akin to education, are also observed for utilities. On average, households with international students allocate more funds to utilities over six months compared to non-educational migrants in OECD countries and non-migrant households. However, these differences are relatively modest, typically ranging between \$5 to \$8, as demonstrated in Table 2.2 for Nigeria. In Kenya, households with non-educational migrants in OECD countries tend to allocate higher budgets to utilities than the other two groups. The key question here revolves around whether households

with international students possess greater disposable income for spending, as the data presented in Tables 2.2 and 2.3 indicate that differences in household spending on utilities may not significantly influence the decision to migrate for educational or non-educational purposes.

## 2.5.2 Main Findings

### *Does Pentecostalism Influence International Student Migration in Anglophone Africa?*

Migration theories have traditionally centred on the influence of economic factors, notably income and urbanization. However, this paper takes a more in-depth look at the examination of cultural factors, with a particular focus on religion. As depicted in models 1 and 2<sup>1</sup>, detailed in Table 2.4, the analysis demonstrates that identification with Pentecostalism significantly impacts the odds of international student migration to OECD countries. Specifically, Pentecostal households experience a 1.3-fold (Model 1) increase in these odds when compared to households adhering to other non-catholic religions (including Islam). Notably, this effect remains statistically significant even after accounting for parental education, household expenditure, urban residence, ethnicity, and other covariates. This finding provides support for Hypothesis 1, which posits that within migrating households, Pentecostalism predicts international student migration.

For hypothesis two, in which I aim to test whether associating with Pentecostalism has an effect on non-education purposes, the result also lays credence to the hypothesis and shows that Pentecostal affiliation increases the odds of migrating abroad for non-academic reasons and the odds increase by 1.6. In the unmatched sample (Model 1), the odds were 1.1 representing no increase in the odds. Depending on the models, it is unclear whether Pentecostalism has a strong positive effect on international migration for non-education purposes as the matched sample as seen in the balance table in Figure 2.2 shows that matching may not be required.

Based on both sets of results, I provide compelling evidence suggesting that the influence of Pentecostalism on internationalism in this region remains strategically significant in the domain of international education. There are convincing reasons to establish a link between Pentecostalism and the choice of international education within migrating households, a connection that transcends the boundaries of international migration itself. However, determining whether it exerts a substantial positive impact on non-educational purposes necessitates further investigation.

### *Explaining the Effect of Catholicism*

I separate the influence of Pentecostalism and Catholicism in the religion in two ways. I highlight a Nigeria-only model which is a country with an equal number of Christians than Muslims unlike Kenya where the majority are likely to be Christians, and discuss further the implications of these findings in the discussion section. A further look at the Nigeria-only model shows a significant influence of Pentecostalism on OECD student migrants among Nigerian households with an increased odds of 3.33, though associating with the Catholics has quite high odds for international student migration as well which is an odd of 2.46 compared to other religions. While Pentecostalism is shown to have an

---

<sup>1</sup>Model 1 is with the sample with propensity score

influence on OECD, and student migration, the effects are stronger in Nigeria and in the discussion section, I highlight why this may be important in a context where Christians are not disproportionately higher than other religions.

### 2.5.3 Other Findings

#### *Does the Education of Parents Influence Migration for Education and non-Education Purposes?*

Furthermore, the analysis of Models 1 (matched sample) and 2 (unmatched sample) reveals a positive association between higher levels of parental education and international student migration, whether for educational or non-educational purposes. This suggests that having at least one parent who has completed college or higher significantly predicts whether a college-ready child will attend schools in an OECD country. This finding aligns with research conducted in other contexts, indicating that parents of migrants tend to possess higher levels of education compared to non-migrants, although these effects were not broken down in prior studies (Feliciano and Lanuza, 2017).

However, in the case of Nigeria, higher levels of parental education do not appear to predict OECD student migration, as indicated by an odds ratio of 0.42. Descriptive statistics<sup>1</sup> show that both households of student migrants and non-migrants have an average of 12 years of education each. Interestingly, we observe that households with children migrating for non-educational purposes have a higher likelihood of doing so if the parent possesses post-secondary education.

Table 2.4: Odds Ratios from Multinomial Regression: The Effect of Pentecostalism among Households with children migrating for International Educational and Non-Educational Purposes to OECD Countries (compared to non-migrants). Data Source: World Bank, 2000.

Models	<i>Dependent variable:</i>					
	Model 1		Model 2		Nigeria Only	
	non-Edu	Edu	non-Edu	Edu	non-Edu	Edu
<b>Religion</b>						
Islam & Others	-	-	-	-	-	-
Pentecostals	1.636***	1.326***	1.102***	1.843***	1.774***	3.325***
	(0.0004)	(0.001)	(0.0002)	(0.0002)	(0.0001)	(0.0001)

<sup>1</sup>The number of schooling years was not presented in the descriptive statistics table but was computed.

Catholic	1.083*** (0.0002)	5.348*** (0.001)	1.137*** (0.0003)	7.929*** (0.001)	1.291*** (0.0002)	2.458*** (0.0002)
<b>Parental Education</b>						
No Education	-	-	-	-	-	-
Primary	1.097*** (0.001)	0.734*** (0.001)	0.837*** (0.001)	0.719*** (0.001)	2.263*** (0.001)	0.340*** (0.001)
Secondary	1.939*** (0.0002)	1.107*** (0.001)	1.451*** (0.0003)	0.899*** (0.0004)	2.334*** (0.0005)	0.300*** (0.0002)
Vocational	1.234*** (0.0002)	0.652*** (0.0001)	0.511*** (0.0001)	0.539*** (0.0001)	1.000*** (0.000)	1.000*** (0.000)
Higher	1.594*** (0.0004)	2.016*** (0.001)	2.524*** (0.0003)	2.273*** (0.0005)	2.133*** (0.001)	0.422*** (0.001)
HH Size	1.036*** (0.031)	1.109*** (0.034)	1.057*** (0.026)	1.089*** (0.030)	1.055*** (0.035)	0.961*** (0.057)
Own a Computer	4.437*** (0.0003)	3.101*** (0.0003)	3.192*** (0.0001)	2.507*** (0.00004)	2.559*** (0.0003)	2.922*** (0.001)
<b>Residence</b>						
Rural	-	-	-	-	-	-
Urban	0.491*** (0.001)	4.918*** (0.001)	0.653*** (0.0001)	2.727*** (0.001)	0.884*** (0.001)	1.029*** (0.001)
Constant	0.012*** (0.001)	0.015*** (0.002)	0.008*** (0.001)	0.022*** (0.001)	0.004*** (0.001)	0.306*** (0.001)
<hr/>						
<i>N</i>	4257	4257	5079	5079	494	494
<hr/>						
Akaike Inf. Crit.	2,156.767	2,156.767	3,048.172	3,048.172	794.236	794.236
<hr/>						

<sup>1</sup>\*p<0.1; \*\*p<0.05; \*\*\*p<0.001

<sup>2</sup>OR = Odds Ratio, SE = Standard Error

The table is the output from a multinomial regression where the base category for all models is non-migrant households. Model 1 is the sample using propensity score with Pentecostalism as the treatment without controlling for education cohorts. Model 2 is the unmatched sample. The last model uses the matched sample for Nigeria only. All covariates are included in the models. All models control for age, ethnicity, ownership of a computer, household size, expenditure of food, utilities and education, and parental occupation.

---

### *Urban residence does not predict migration for non-education purposes*

International migration is commonly perceived as being predominantly pursued by individuals in more economically privileged environments. However, this assumption may not hold true for urban areas with high population densities, as these settings can reduce the average likelihood of individuals being selected for relatively fewer international opportunities.

Furthermore, the accessibility of information concerning migration opportunities is greatly influenced by access to technology and modern communication methods. It is noteworthy that, apart from educational purposes, the results indicate that households in urban areas do not possess a higher likelihood of sending their family members to OECD countries. These resources are increasingly becoming available to households in rural areas through their children, parents, schools, and rural Pentecostal churches. Consequently, this raises the prospect that families in less affluent regions may also compete with their wealthier counterparts for similar foreign opportunities, especially when households with educated parents can often raise funds through crowdfunding to cover the high expenses associated with foreign travel for employment or education.

Another reason why residing in rural areas may not impede international migration opportunities is that non-educational migration may be influenced by kinship and social networks. It is also noteworthy that the result about whether family size predicts international education for families with college-ready children is consistent with previous studies that have found that larger households, where resources such as computers etc. can be shared among children, are positively correlated with bigger opportunities (Rosenzweig and Zhang, 2009; Steelman et al., 2002; Alidou and Verpoorten 2019).

## 2.6 Discussion

I have shown that associating with Pentecostalism has an influence on not just local education, but international education in OECD countries and also on migration for non-educational purposes. In Kenya where there are a higher proportion of Catholics, the results increase the chances that more Catholic households are more likely to send their children for international education, compared to non-migrants. In Nigeria, Pentecostal Households have higher chances of all types of OECD migration.

The result may have more interesting implications for countries like Nigeria where there is likely to be an equal share of Christians and Islam religion and why associating

with Pentecostalism may provide some variations.

Religious demographers in sub-Saharan Africa have observed a rising trend of "Pentecostal Catholics" or "Pentecostal-Charismatic" individuals, also known as the Catholic Charismatic Renewal (CCR) Movement (Meyer, B, 2004). Similar to Pentecostals, CCR members display intense religious devotion that correlates with increased participation and engagement in religious practices. Research has shown that attributes associated with Pentecostalism are also present among Catholics, and studies in Kenya and Nigeria have found that CCR members do not differ significantly from Pentecostals in their beliefs and time devoted to religious practices (Sperber & Hern, 2023; Sarkissian & Dowd, 2012).

Although the exact proportion of CCR members in Kenya and Nigeria is not known, their numbers are growing, particularly among Roman Catholics in many parts of Africa (Lado, 2009). According to Pew Research (2009), it is estimated that at least a quarter of the world's two billion Christians are "renewalists" (Pentecostals and charismatics). The term "renewalist" is generally used to refer to both Catholics and Pentecostals who emphasize spiritual experience and congregational participation over adherence to formal, codified doctrine. Therefore, we can expect that the impact of Pentecostalism in Africa may be similar to the experience of Catholics who identify with Pentecostal Catholics or the CCR.

While there are ongoing debates about the use of the term "renewalist", evidence suggests that there are growing commonalities, particularly in Kenya with a high Christian population, and we can expect to find similar salience among classical Pentecostals and Pentecostal Catholics. Research groups them and refers to them as renewalists (Grossman, 2015; Sperber & Hern, 2023; Sarkissian & Dowd, 2012) but it is important to examine how their impact may differ.

There has been discussion about how the values promoted by the Pentecostal religion may encourage members to engage in capitalist practices or be more open to migration. However, information about transnational migration programs primarily comes from the Internet and social networks. It's crucial to understand how households choose to use this information and whether they have the necessary social and economic resources to do so. Pentecostalism emphasizes education, and its impact in supporting households for international education may extend beyond organizing programs, workshops, and seminars focused on self-empowerment.

This finding supports Hypothesis one and two that associating with Pentecostalism in Anglophone Africa influences both student and non-student migration. It further accentuates the historical linkage between Pentecostalism, migration and education and shows that these links remain strong. In a similar analysis with the same dataset, which is not shown in this paper, higher levels of parental education also significantly predict whether households will be Pentecostal.

Additionally, the results also show that associating with Catholicism predicts the chances of international education with even higher margins than Pentecostalism. A heterogeneous analysis by country shows that this is mainly driven by Kenya, and the trends are reversed in Nigeria, but not significant. This follows what other religious demographers have found, that there are similarities between Charismatic Catholics



(Pentecostal Catholics) in the region mainly due to commonalities in the devotion and engagement of members and attribution to the doctrine of renewal and education.

In examining the result on the positive effect of parental education on international migration, we are also able to probe the advantage a child may gain from her parent's religion. This can be further analyzed in terms of the parent's ability to use resources associated with the religion they received and how that can motivate their children to achieve upward social mobility. This distinction is important for discussing (1) the capacity of social agents, (2) the contemporary relevance of the agent's informational wealth, (3) the contributory effect of dual agents (child and parent), and (4) the deviation from any normative connotation of the relative importance of specific social origins. Household choices and strategies are often based on rational choices, as decisions about networks are part of family migration "strategies" (Portes and Hao, 2004).

## 2.7 Conclusion

This paper offers an empirical analysis of the factors influencing the selection of OECD migrants for both educational and non-educational purposes in two Anglophone African countries, with a particular emphasis on the role of the Pentecostal religion. Previous research has not thoroughly explored the origins of Anglophone African migrants and the influence of religion on the migration process. One significant challenge in this type of study is that contextual factors can impact both migrants and non-migrants. To address this, our study adjusts for factors that affect both Pentecostal and non-Pentecostal households using propensity score matching.

Firstly, our findings indicate that identifying with the Pentecostal religion positively impacts the decision to migrate for educational purposes. Households in Anglophone Africa affiliated with the Pentecostal religion increase their odds of sending their children to study in an OECD country by 1.4 times, compared to those identifying with other non-Catholic religions.

Secondly, parental education indeed plays a substantial role in predicting international education. The results demonstrate that the likelihood of Anglophone African college students being selected for international migration, as opposed to staying in their home country, increases when at least one parent has attained a higher level of education, such as college or higher education.

Lastly, our analysis reveals that households residing in urban areas do not necessarily have better prospects for sending their children to OECD countries, except when the purpose is education. Access to OECD opportunities appears to be less limited to urban areas in this context.

It is important to acknowledge the main limitations of this study. Firstly, the median number of years spent by educational migrants in 2009 from this sample was three years. As an approximate measure, the study compared the household properties of both groups three years after their child left for home, which can be regarded as post-migration data. It is expected that migrants' household resources and behaviours due to remittances as full-time students would not have changed significantly in these four

years (2004-2008). Secondly, future research with a higher sample size could add more robustness to the results.

Additionally, it is important to note that while the study depicts Pentecostalism as a rational, instrumental, and one-dimensional opportunity, the religion is also known for its exploitative aspects and corruption among pastors. Furthermore, the study does not consider the fact that a number of educated migrants may be politically selected and sponsored by their state governments. However, according to the Institute of International Education, only 4 percent of those studying in the United States were primarily sponsored by their national government in 2010, and 66.9 percent of them were financed by themselves or their families.

I make two major contributions to the field of understanding the selectivity of international migration, particularly for college-ready students. Firstly, this is one of the first studies to investigate the impact of Pentecostalism on international migration, specifically focusing on effects that consider household pre-migration experiences of Anglophone African migrants in OECD countries. Secondly, the study examines the contexts from which the majority of highly skilled Africans in OECD countries originate, which have been largely understudied. Consistent with other research, this study demonstrates that Pentecostalism may be appealing to marginalized groups in West Africa and that the discussion of the effect of religion on education migration may not be limited to economic factors (Gilbert, J., 2015).

**Data Availability Statement** All data and codes are available publicly here. The OSF link to the data and codes can be deleted for blind-review purposes as it contains the author's name.

## 2.8 References

- Akanle, O., Orobome, O. A. (2019). International Migrants' Remittances, Kinship Networks and Social Constructions. *IBADAN JOURNAL OF SOCIOLOGY*, 9(1), 23-23
- Alidou, S., & Verpoorten, M. (2019). Family size and schooling in sub-Saharan Africa: testing the quantity-quality trade-off. *Journal of Population Economics*, 32(4), 1353-1399.
- Alvarsson, J.-A., & Segato, R. L. (2003). Religions in transition: Mobility, merging and globalization in contemporary religious adhesions. Uppsala Univ. Library.
- Alves, L. M. (2018). Pentecostalism in Latin America, Rural Versus Urban.
- Ambler, J. S. (1994). Who benefits from educational choice? Some evidence from europe. *Journal of Policy Analysis and Management*, 13 (3), 454-476.
- Bangura, J. B. (2020). Pentecostalism in Sierra Leone: contextual theologies, theological education and public engagements. Missionshilfe Verlag.
- Bangura, J. B. Pentecostalism in Sierra Leone.
- Barro, R. J., & McCleary, R. M. (2003). Religion and economic growth.
- Barry R. Chiswick, "The Earnings and Human Capital of American Jews", *Journal of Human Resources* 18, 3, (March 1983): 313-336
- Bendix, R. (1998). Max weber: An intellectual portrait (Vol. 2). Psychology Press
- Berger, P. L. (2010). Max weber is alive and well, and living in guatemala: The protestant ethic today. *The Review of Faith & International Affairs*, 8 (4), 3-9.
- Bommes, M., Kolb, H. (2006). Migrants' work, entrepreneurship and economic integration. *The Dynamics of International Migration and Settlement in Europe*, 99.
- Bommes, M., Kolb, H. (2006). Migrants' work, entrepreneurship and economic integration. *The Dynamics of International Migration and Settlement in Europe*, 99.
- Borjas, G. J. (1987). Self-selection and the earnings of immigrants (tech. rep.). National Bureau of Economic Research.
- Breen, R., & Goldthorpe, J. H. (1997). Explaining educational differentials: Towards a formal rational action theory. *Rationality and society*, 9 (3), 275-305.
- Bukodi, E., & Goldthorpe, J. H. (2013). Decomposing 'social origins': The effects of parents' class, status, and education on the educational attainment of their children. *European sociological review*, 29 (5), 1024-1039
- Carbone, G. (2017). Out of Africa: why people migrate. *Out of Africa*,

Castles, S. (2008). Development and Migration–Migration and Development: What comes first? SSRC Migration Development Conference Paper No. 2. Social Science Research Center, New York.

Chandler, D. J. (2017). African American spirituality: Through another lens. *Journal of Spiritual Formation and Soul Care*, 10(2), 159-181.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.

Cummings, C. J. Pacitto, D. Lauro, M. Foresti (2015) Why people move: understanding the drivers and trends of migration to Europe, London, ODI, p. 25

Dixon-Fyle, M., & Cole, G. R. (2006). New perspectives on the sierra leone krio (Vol. 204). Peter Lang.

Easterlin, Richard A. 1987. Birth and Fortune: The Impact of Numbers on Personal Welfare. Chicago, IL: University of Chicago Press.

Fafchamps, M. (2003). Ethnicity and networks in African trade. *Contributions in Economic Analysis Policy*, 2(1), 1-51.

Fasang, A. E., Mangino, W., & Bruckner, H. (2014). Social closure and educational attainment. *Sociological Forum*, 29 (1), 137-164.

Feliciano, C. (2005). Educational selectivity in us immigration: How do immigrants compare to those left behind? *Demography*, 42 (1), 131-152.

Filmer, D., & Pritchett, L. (1999). The effect of household wealth on educational attainment: Evidence from 35 countries. *Population and development review*, 25 (1), 85-120.

Freeman, Dena. "Pentecostalism and Development." *Churches, NGOs and Social Change in Africa*. Basingstoke [Jerusalem]: Palgrave Macmillan (2012).

Gerhards, J., Silke, H., & Carlson, S. (2017). Social class and transnational human capital: How middle and upper class parents prepare their children for globalization (Vol. 213). Taylor & Francis.

Gilbert, J. (2015). The heart as a compass: preaching self-worth and success to single young women in a Nigerian Pentecostal church. *Journal of Religion in Africa*, 45(3-4), 307-333.

Grabowska, I., & Jastrzebowska, A. (2019). The impact of migration on human capacities of two generations of poles: The interplay of the individual and the social in human capital approaches. *Journal of Ethnic and Migration Studies*

Grossman, G. (2015). Renewalist Christianity and the political saliency of LGBTs: Theory and evidence from Sub-Saharan Africa. *The Journal of Politics*, 77(2), 337-351.

- Gullick, M. (1977). The educational background of Vincentian immigrants to Britain. *New Community*, 5 (4), 405-410.
- Hamel, J. Y. (2009). Information and communication technologies and migration.
- Hamilton, E. R., & Huang, P.-C. (2020). Contextualizing Mexican migrant education selectivity. *Population and Development Review*, 46 (3), 603-616.
- Haq M. 1995. *Reflections on Human Development*. Oxford: Oxford University Press.
- Hillman, Arye. 2007. "Economic and Security Consequences of Supreme Values." *Public Choice*, 131(3-4): 259-280.
- Horowitz, J. (2018). Relative education and the advantage of a college degree. *American Sociological Review*, 83(4), 771-801.
- Ishitani, T. T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *The Journal of Higher Education*, 77(5), 861-885.
- Kanas, A., & Müller, K. (2021). Immigrant Women's Economic Outcomes in Europe: The Importance of Religion and Traditional Gender Roles. *International Migration Review*, 55(4), 1231-1264
- Kuran, T. (2004). Why the Middle East is economically underdeveloped: historical mechanisms of institutional stagnation. *Journal of economic perspectives*, 18(3), 71-90.
- Lado, Ludovic. 2009. *Catholic Pentecostalism and the Paradoxes of Africanization: Processes of Localization in a Catholic Charismatic Movement in Cameroon*. Leiden: Brill.
- Lerch, M. (2020). International migration and city growth in the global south: An analysis of ipums data for seven countries, 1992-2013. *Population and Development Review*, 46 (3), 557-582.
- Levitt, P. (2003). "You know, Abraham was really the first immigrant": Religion and transnational migration. *International migration review*, 37(3), 847-873.
- Lindley, J. (2002). Race or religion? the impact of religion on the employment and earnings of Britain's ethnic communities. *Journal of Ethnic and Migration Studies*, 28 (3), 427-442.
- Marshall, R. (2009). *Political spiritualities*. In *Political Spiritualities*. University of Chicago Press.
- McCleary, Rachel M. and Robert J. Barro. 2004. "Religion and Economy." *Journal of Economic Perspectives*, 20(2): 49-72.
- Mein, E., Esquinca, A., Monarrez, A., & Saldaña, C. (2020). Building a pathway to engineering: The influence of family and teachers among Mexican-origin undergraduate

engineering students. *Journal of Hispanic Higher Education*, 19 (1), 37-51.

Menjivar, C. 1999 "Religious Institutions and Transnationalism: A Case Study of Catholic and Evangelia; Salvadoran Immigrants

Meyer, B. (2004). Christianity in Africa: From African independent to Pentecostal-charismatic churches. *Annu. Rev. Anthropol.*, 33, 447-474.

Montgomery, J. D. (1991). Social networks and labor-market outcomes: Toward an economic analysis. *The American economic review*, 81(5), 1408-1418.

Nel, M. (2018). Pentecostal ecumenical impulses: Past and present challenges. In *die Skriflig*, 52(1), 1-8.

Nohl, A.-M., Schittenhelm, K., Schmidtke, O., & Weiss, A. (2006). Cultural capital during migration|a multi-level approach for the empirical analysis of the labor market integration of highly skilled migrants. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 7 (3).

Norris P. 2001. Civic Engagement, Information Poverty, and the Internet World-wide. Cambridge: Cambridge University Press.

Nunn, N., Akyeampong, E., Bates, R., & Robinson, J. A. (2014). Gender and missionary influence in colonial africa. *African development in historical perspective*.

Nunziata, L., & Rocco, L. (2018). The Protestant ethic and entrepreneurship: Evidence from religious minorities in the former Holy Roman Empire. *European Journal of Political Economy*, 51, 27-43.

Obadare, E. (2006). Pentecostal presidency? the lagos-ibadan 'theocratic class' & the muslim 'other'. *Review of African Political Economy*, 33(110):665-678.

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, 75(3), 249-284.

Pew Research Center. (2006), <https://www.pewresearch.org/religion/2006/10/05/spirit-and-power/>

Portes, A., & Hao, L. (2004). The schooling of children of immigrants: Contextual effects on the educational attainment of the second generation.

Reconsidering the effects of sibling configuration: Recent advances and challenges. *Annual review of sociology*, 28(1), 243-269.

Reuven Brenner and Nicholas M. Kiefer (1981), "The Economics of the Diaspora. Discrimination and Occupational Structure", *Economic Development and Cultural Change*, 29, 3 : 517-534 also emphasize that Jews "long history"

Rocha, C. (2019). "God is in control": Middle-class Pentecostalism and international

student migration. *Journal of Contemporary Religion*, 34(1), 21-37.

Root, B. D., De Jong, G. F. (1991). Family migration in a developing country. *Population Studies*, 45(2), 221-233.

Rosenzweig, M. R., & Zhang, J. (2009). Do population control policies induce more human capital investment? Twins, birth weight and China's "one-child" policy. *The Review of Economic Studies*, 76(3), 1149-1174.

Roth, T. (2020). The role of religion, religiousness and religious participation in the school-to-work transition in germany. *Journal of Ethnic and Migration Studies*, 46 (17), 3580-3602.

Sabatier, C. (2008). Ethnic and national identity among second-generation immigrant adolescents in france: The role of social context and family. *Journal of adolescence*, 31 (2), 185-205

Sarkissian, A., & Dowd, R. A. (2012). The Roman Catholic Charismatic Movement and Social Capital in Sub-Saharan Africa.

Schneider, B., & Saw, G. (2016). Racial and ethnic gaps in postsecondary aspirations and enrollment. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2 (5), 58-82.

Sezgin, Z. (2008). Turkish migrants' organizations: Promoting tolerance toward the diversity of Turkish migrants in germany. *International Journal of Sociology*, 38 (2), 78-95.

Smitherman, G. (1986). *Talkin and testifyin: The language of black america* (Vol. 51). Wayne State University Press.

Sperber, E., & Hern, E. (2023). Comparing Pentecostal and Charismatic Christians' Religious and Political Beliefs Across Latin America and Sub-Saharan Africa. *Journal for the Scientific Study of Religio*

Stambach, A. (2009). *Faith in schools: Religion, education, and American evangelicals in East Africa*. Stanford University Press.

Steelman, L. C., Powell, B., Werum, R., Carter, S. (2002). Reconsidering the effects of sibling configuration: Recent advances and challenges. *Annual review of sociology*, 28(1), 243-269.

Stephens, N. M., Townsend, S. S., Markus, H. R., Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, 48(6), 1389-1393.

Stocke, V. (2007). Explaining educational decision and effects of families' social class position: An empirical test of the breengoldthorpe model of educational attainment. *European sociological review*, 23 (4), 505-519.

Suryadarma, Daniel, Why are Muslims Left Behind in Education? Evidence from Indonesia (July 31, 2009). Available at SSRN: <https://ssrn.com/abstract=1440489> or <http://dx.doi.org/10.2139/ssrn.1440489>

Swidler, A. (1986). Culture in action: Symbols and strategies. *American sociological review*, 273-286

Tenn, Steven. 2005. "An Alternative Measure of Relative Education to Explain Voter Turnout." *Journal of Politics* 67(1):271-82.

Turner, H. W. (1980). African independent churches and economic development. *World Development*, 8(7-8), 523-533.

Van Dijk, R. A. (1997). From camp to encompassment: discourses of transsubjectivity in the Ghanaian Pentecostal diaspora. *Journal of religion in Africa*, 27(Fasc. 2), 135-159

Van Hear, N., Bakewell, O., & Long, K. (2018). Push-pull plus: reconsidering the drivers of migration. *Journal of ethnic and migration studies*, 44(6), 927-944.

Woosley, S. A., Shepler, D. K. (2011). UNDERSTANDING THE EARLY INTEGRATION EXPERIENCES OF FIRST-GENERATION COLLEGE STUDENTS. *College Student Journal*, 45(4).

Zhou, M. (1997). Growing up American: The challenge confronting immigrant children and children of immigrants. *Annual review of sociology*, 23(1), 63-95.