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Tackling the largest global education challenge? Secular and religious education in northern Nigeria

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Abstract

With more than ten million children out of school, Nigeria is the country furthest away from universal primary education. Low access to school is concentrated in the north of the country where a tradition of religious education has been seen as both a constraint and an opportunity. This paper uses recent survey data to explain household decisions related to secular and religious education. It demonstrates a shift in attitudes with unobserved household characteristics that favor religious education attendance being negatively correlated with secular school attendance after controlling for a rich set of background variables. The paper also provides quantitative evidence to support the argument that the poor quality of secular education acts as a disincentive to secular school attendance. This finding casts doubts at policy attempts to increase secular school enrolment through the integration of religious and secular school curricula.

Keywords

Universal primary education, Islamic education, Nigeria, bivariate probit

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1. INTRODUCTION

Nigeria is the country furthest away from the goal of universal primary education, one of the international targets agreed at the Dakar World Education Conference in 2000. In absolute terms, the number of out-of-school children exceeded 10.5 million in 2010, up from 6.9 million in 2000. Despite accounting for just 4% of the global population of children of primary school age, 17% of the global out-of-school population live in Nigeria. In relative terms, 42% of children of primary school age are estimated to be out of school, making Nigeria one of the ten countries with the lowest enrolment ratios in the world (UNESCO, 2012). This is not just the result of an increasing population: according to the two latest rounds of the Demographic and Health Survey (DHS), the net primary school attendance rate increased from 60% in 2003 to only 62%, in 2008 (Nigeria National Population Commission & ICF Macro, 2009; Nigeria National Population Commission & ORC Macro, 2004). By contrast, major progress was achieved in the rest of sub-Saharan Africa over roughly the same period¹.

The vast majority of out-of-school children live in the north of the country. Of those children, however, more than four in five receive some kind of Islamic religious education. The comparative advantages of Islamic religious schools in western Africa, including proximity, informal organization, and community involvement, have long been acknowledged. The possibility to build literacy skills through the medium of Arabic has been used as an argument that these schools could be a stepping stone towards achieving universal primary education (Easton et al., 1997; Wagner, 1989). The example of Asia is often invoked, as Islamic religious education institutions have been a key ally in efforts to achieve Education For All, for example, in Bangladesh (Asadullah, Chaudhury, & Dar, 2007), Indonesia (Ali et al., 2011), and Pakistan (Andrabi, Das, Khwaja, & Zajonc, 2006).

¹ For example, the net primary attendance ratio increased from 42% in 2005 to 64.5% in 2011 in Ethiopia (Ethiopia Central Statistical Agency & ICF International, 2012; Ethiopia Central Statistical Agency & Macro, 2006) and from 52% in 2001 to 75% in 2010 the Democratic Republic of Congo (D. R. Congo INS & UNICEF, 2011; UNICEF, 2002). In the latter, the increase has taken place despite the continuing conflict. By contrast, since the restoration of democratic rule in 1999, the economic, political and social conditions in Nigeria had favored education expansion.

In the years after independence in 1960, the expansion of public secular education in northern Nigeria, although slower than in other parts of the country, was compatible with and complementary to the expansion of Islamic religious schooling. A study that compared the determinants of religious and secular school attendance of two cohorts of young males in Kano in the 1960s and 1970s concluded that “the social forces that enable and encourage Kano youth to achieve in one system of schooling increasingly have become the same forces that promote achievement in the other system” (Morgan & Armer, 1988). This complementarity between secular and religious education encouraged the government to provide incentives to Islamic religious schools to offer an integrated curriculum with secular subjects in order to accelerate the achievement of universal primary education. However, the effectiveness of these interventions has been limited.

This paper is using recent household survey data to lend empirical support to two arguments about why such an extensive non-formal education system has not become a springboard to improve access to school for all children. First, those conditions, which made secular and religious schooling complementary in the first three decades after independence, are no longer in place. Controlling for a rich set of individual, household and community characteristics, we find that receiving religious education has a negative effect on the probability of receiving secular education.

Different reasons have been cited as potentially explaining this shift. The second contribution of the paper is to provide evidence supporting one of the core arguments put forward in this debate, namely that it is the failure of public schools to deliver quality education that has halted progress towards integration. Unlike most studies in this literature, which have used input measures, the paper uses evidence on learning outcomes to substantiate the claim that over the past thirty years formal schools have “become foreign islands to rural, poor, migrant or nomadic children thereby increasing their sense of alienation and rejection”. Parents have switched back to a type of education “tailored to special needs of those with limited engagement with the state” (Baba, 2011).

The paper is structured as follows. Section 2 provides the background on educational disparities in Nigeria and the main features of Islamic religious education in northern Nigeria. Section 3 introduces a typology of schooling options that are available to households and presents the relevant data. Section 4 describes the methodology followed to assess the determinants of religious and secular education attendance decisions. Section 5 presents the results. A final section concludes.

2. BACKGROUND

(a) Disparities in access to education in Nigeria

Data from the 2008 Demographic and Health Survey are used to demonstrate some stylized features in the history of educational development in Nigeria across the six geopolitical zones. First, there was a major gap in access to school between the north and the south already at the time of independence. Among the cohort of 60-64 year olds who were of primary school age before independence in 1960, three fifths of those living in the South South and South West and half of those in the South West zones had been to school. By contrast only one in ten had been to school among those from the North East and North West zones (**Figure 1**, left panel).

Second, two major federal government attempts to universalize primary education since independence have met with limited success. The first attempt, the Universal Primary Education program (UPE, six-year cycle) (1976-1981), would have had its main impact on the cohort of 35-39 year olds. However, the largest progress in terms of access to school took place *before* the implementation of the UPE program, notably among the cohorts of 40-44 and 45-49 year olds in the North Central zone, which has a high level of ethno-linguistic and religious diversity. However, the differences in access to school between the North East or North West zones, whose populations are overwhelmingly Muslim, and the educationally more advanced zones of southern Nigeria increased during program implementation. The second attempt, the Universal Basic Education program (UBE, nine-year cycle) (since 1999) has also not had a major impact on the probability that a child goes to school. Access to education in the North East and North West zones continues to grow but at a slow pace that government policies have not been able to influence.

Third, there are large and persistent gender gaps in northern Nigeria, especially in the North West zone, where as few as 39% of females aged 15-19 years had ever been to school compared to 65% of males in 2008. The gender gap closed somewhat for the last cohort as the percentage of boys ever attending school stagnated, while the percentage of girls continued to increase albeit slowly (**Figure 1**, right panel).

(b) Religious education in Northern Nigeria

The concept of education in northern Nigeria, as elsewhere in Islamic western Africa, has historically been associated with the teaching of the Qur'an and Islamic religious texts (Hiskett, 1975). When British colonization and missionary activity introduced schools in southern Nigeria in late 19th and early 20th centuries, such initiatives came to be associated with proselytization and were resisted in the north². As a result, northern Nigeria lagged behind southern Nigeria in terms of access to education at the time of independence. A concern about the potential implications of this gap led to a transformation of the religious education sector from the 1950s onwards.

Broadly two types of religious schools are generally recognized in northern Nigeria. First, *qur'anic schools* continue the tradition of Islamic education that focuses on the Qur'an. They take two forms:

- In the standard form (*makaranta allo*, or 'school of the slate' on which children copy the Qur'an), children gather at specific locations such as the house of the teacher, a mosque or a community space. The teacher (malam), who owns the school, lives off fees or charitable donations made by parents or other benefactors. The knowledge and values they transmit are considered by most parents an essential part of a child's education. It would be very unusual for any of these schools to offer secular subjects. As they are informal in terms of time schedule, this allows some children to attend both a religious school and a government school.

² In southern Nigeria, Christian missions were free to operate since the 19th century and used schooling as a key mechanism for their evangelisation work as well as to compete with each other (Bassey, 1999; Gallego & Woodberry, 2010). Building on these foundations, authorities in pre-independence southern Nigeria took the first steps to expand primary education in the 1950s, which were very successful (Uwaifo Oyelere, 2010). By contrast, missionary activity had been opposed by local rulers in northern Nigeria and actively discouraged by colonial authorities with long-lasting effects on educational attainment (Larreguy Arbesu, 2011).

- In the traditional form (*tsangaya*), boys are handed over by parents to the teacher who moves with his pupils so that they can fully concentrate on their study (Modibbo, 2012)³.

Second, *islamiyya schools* were introduced in the 1950s inspired by the approach taken by other Muslim countries in response to the challenge of secular schooling. These schools moved beyond Qur'an memorization to cover other Islamic subjects (Bray, 1981; Umar, 2001). Unlike qur'anic schools they follow a formal structure in terms of time schedules and approaches to teaching. They are also private, owned by individuals, communities or societies. They take two main forms:

- Most schools (*islamiyya general*) do not offer secular subjects either because they choose not to offer secular subjects or because they cannot offer them for lack of suitably qualified teachers.
- But some schools (*islamiyya integrated*) offer secular subjects. This happens either on their own initiative or because they receive full or partial government support.

Recognizing the potential of *islamiyya schools* to help universalize primary education, the government took two steps. First, in the 1970s, as part of the UPE program, the government took over a large number of community religious schools in northern Nigeria (Baba, 2010). Second, more recently, federal and state policy has been to further integrate religious schools into the public education system⁴. State governments, which are responsible for basic education service provision, exercise regulatory oversight and provide incentives to some religious schools in cash (salaries for teachers of secular subjects) and kind (learning materials), on the condition that these schools also deliver a basic curriculum incorporating mathematics, English, Hausa and sometimes science and social studies⁵. With support from UNICEF a unified curriculum

³ These itinerant students (*almajirai*) often beg in order to earn a living. While in the past communities have respected this way of life, it has come to be seen more recently as a major social problem (Hoechner, 2011; Thorsen, 2012).

⁴ The 2004 National Policy on Education included integration as one of its strategies to achieve Education For All goals: "With a view to correcting the imbalance between different parts of the country, with reference to the availability of educational facilities and the number of pupils receiving formal education and girls education ... State governments shall ensure the integration of formal basic education curriculum into Qur'anic and *Islamiyya Schools*" (Nigeria Federal Ministry of Education, 2004).

⁵ Despite the skepticism towards secular schools on historic and cultural grounds, it is believed that there is genuine demand in northern Nigeria for an integrated curriculum. For example, in a survey of community leaders only 4% identified community mistrust of western education as a major constraint towards integration (Nigeria Federal Ministry of Education, 2005).

has been developed in Kano State. The state government aims to integrate 3% of religious schools every year with the aim to integrate half of all religious schools by 2018 (Kano State Ministry of Education, 2008).

However, neither initiative has been successful. The general view among communities that handed over the management of their schools to the government in the 1970s is that their schools have not benefitted. In addition, state governments have lacked capacity and resources to implement integration policies. For example, only a tenth of the 270 religious schools per year targeted for integration were integrated in Jigawa State (Jigawa State Ministry of Education Science and Technology, 2010a). Across northern Nigeria, the majority of religious schools do not receive any government support.

This is not a case of discrimination against religious schools. State governments have been generally unable to ensure a minimum set of inputs even to public secular schools. The widely held view is that the quality of education in public schools has deteriorated⁶. Across Nigeria, the state has retreated from education service delivery. In the educationally more developed southern Nigeria, this is mainly demonstrated in the increasing importance of private provision where about 40% of children attend a private school (Nigeria National Population Commission & RTI International, 2011). In northern Nigeria, where private education has not taken root to the same extent, some observers argue that it is precisely this disillusionment with public education that explains the resurgence in community-based islamiyya schools in the 1980s and 1990s (Baba, 2011) (**Figure 3**). By contrast, after the nationalization of religious community schools in the mid-1970s, the number of public schools stagnated virtually until the restoration of democratic rule.

⁶ Hard evidence on the poor financing of schools in Nigeria is scant. The responsibility for education service delivery falls on state and local governments. However, at this level of government, the public financial management system is not transparent and no records exist recording trends in public expenditure (Berryman & Gueorgieva, 2007). But the poor state of the infrastructure has been documented, among other, in the 2009-10 annual school census. There were adequate seating arrangements in only one out of three classrooms in the states of Jigawa, Kaduna, and Kano and a functioning blackboard in only about one in two classrooms (Jigawa State Ministry of Education Science and Technology, 2010b; Kaduna State Ministry of Education, 2010; Kano State Ministry of Education, 2010). Textbooks are rare. In unannounced visits to a random sample of 240 schools in these three states, only about one in five primary school students had an English or a mathematics textbook (ESSPIN, 2010).

3. DATA ON SECULAR AND RELIGIOUS EDUCATION ATTENDANCE IN NORTHERN NIGERIA

There has been a paucity of sources assessing the relative size of the secular and religious education sectors in northern Nigeria – and where they overlap. Studies have typically had two weaknesses. First, they have focused on either secular or religious education and have not provided a comprehensive picture of the school attendance patterns⁷. Second, even when they have collected information on religious schools, they have not established clearly which of them offered secular subjects.

Two data collection exercises carried out in Kano State in 2009 highlight the challenge. First, a *school census* organized by the Ministry of Education was expected to list all public secular and integrated islamiyya schools. However, a validation survey found that several of the islamiyya schools were in fact not integrated (ESSPIN, 2010). Rather the school list also included religious schools that *could be* integrated. In other words, secular education authorities over-estimate the number of schools that offer secular subjects and therefore cannot be used as a reliable source of information⁸.

Second, a *qur'anic and islamiyya school census* was carried out in 3 of the 44 local government areas. It found that there were 1,185 qur'anic and islamiyya schools⁹. Of these, 5% were islamiyya integrated schools (i.e. they were teaching secular subjects), 26% were islamiyya general schools and 72% were qur'anic schools. But only 61% of the islamiyya integrated schools were registered, which means that religious education authorities under-estimate the number of religious schools that actually offer secular subjects and therefore cannot be used as a reliable source of information either (ESSPIN, 2011)¹⁰.

⁷ One study of qur'anic schools in four states in northern Nigeria, which has attempted this, found that 16% of children were attending primary school (UNICEF, 1999).

⁸ Some islamiyya schools (and sometimes even qur'anic schools) may benefit from state support without in fact offering secular education subjects. Conversely, other islamiyya schools that do not benefit from state support may be offering secular subjects.

⁹ To give a sense of proportion, only 173 secular schools were enumerated during the school census in the three LGAs. In other words, for every secular school there were about eight religious schools.

¹⁰ The average islamiyya primary school had 11 teachers of which 3 were paid by the government. By contrast, the average islamiyya general school had 7 teachers and the average qur'anic school had 3 teachers, none of which was paid by the government.

To conclude, the standard religious school typology may not be useful in practice to help understand what type of education a child is receiving. This is because religious schools do not report accurately whether or not they teach secular subjects. Instead, the main distinction of interest is *whether a child attends receives secular subjects regardless of whether the school she is attending is secular or religious*¹¹. This kind of information is best collected as part of a household survey.

The first household survey to adequately address secular and religious school attendance patterns has been the 2010 Nigeria Education Data Survey (Nigeria National Population Commission & RTI International, 2011). This survey was carried out on the sub-set of households with school age children (4-16 years) in the sample of the 2008 Nigeria Demographic and Health Survey. It is novel in that it included tailored questions on qur'anic and islamiyya schools that were informed by the experience of the two above mentioned census exercises. In particular, after confirming the child's religion, enumerators asked successively whether the child attended an islamiyya or qur'anic school and, if the answer was positive, whether the school offered any secular subjects (English, mathematics, social studies or integrated science).

Children have been classified accordingly into four groups:

- (i) attending no school at all;
- (ii) receiving secular education only;
- (iii) receiving religious education only; and
- (iv) receiving both secular and religious education: this category includes two different cases, namely (a) children who attended a public secular school (in the morning) *and* a qur'anic school (in the afternoon); and (b) children who attended a public secular or religious school offering an integrated curriculum.

¹¹ The actual emphasis on secular subjects varies significantly between these schools. Public secular schools dedicate most of their time to secular subjects. Public islamiyya integrated schools dedicate two thirds of instruction time to secular subjects while private aided islamiyya integrated schools dedicate one third of instruction time to secular subjects. In the absence of regulation, there is great variation between schools, a finding also emerging from studies in other parts of western Africa (Daun, Okuma-Nyström, & Sane, 2004; Mbow, 2009; Moussa & Benett, 2007).

The analysis that follows focuses on two geopolitical zones, the North East and North West. These comprise thirteen states with majority Muslim populations and the poorest education development indicators. **Table 1** shows gross attendance ratios for Muslim children by state. At the primary education level, gross attendance ranges between 36% in Zamfara and 83% in Kaduna. At the junior secondary education level, gross attendance ranges between 15% in Bauchi and 40% in Kano.

Table 2 shows that 45% of children aged 6-14 years in these two zones receive some kind of secular education: 8% only attend a secular school and 37% also receive religious education. About 46% only receive religious education. The remaining 9% do not attend any type of school. There are some clear patterns of education attendance by individual characteristics. While there is near gender parity in religious school attendance, girls (39%) are less likely to receive secular education than boys (50%). Secular education is more common in urban areas (69%) than in rural areas (39%). An index based on asset ownership is used to rank households into five groups in terms of wealth. The gradient between wealth and secular education is steep – and is in fact steeper in the case of combined secular and religious education attendance. These differences are compounded when these characteristics are combined: a boy from the richest quintile living in an urban area has a 78% probability of receiving some secular education; a girl from the poorest quintile living in a rural area has only a 15% probability of receiving some secular education. A girl from the poorest quintile living in a rural area is seventeen times more likely not to receive any kind of education at all compared to a boy from the richest quintile living in an urban area.

4. METHODOLOGY

(a) Modeling the determinants of household education decisions

Unlike most analyses of household education decisions, opting to receive one type of education *does not preclude* also receiving the other type in northern Nigeria. However, the decision to receive one *may not be independent* of the decision to attend the other. The empirical strategy most suited to the estimation of the determinants of such a simultaneous decision process is a bivariate probit regression. In other words, the decision to receive secular and religious education is modeled as the interplay between two latent

variables, respectively the household propensities to give religious education (Y^*_{Ri}) and secular education (Y^*_{Si}) to a child. All that is observed is the actual decision. It is assumed that the error terms u_{Ri} and u_{Si} are normally distributed. If the two decisions are independent of each other, then the covariance of the two error terms will be equal to zero. If they depend on each other, then the coefficient of correlation between the two error terms, ρ , will be non-zero.

$$Y^*_{Ri} = X_{Ri} \beta_R + u_{Ri} \quad (1)$$

$$Y_{Ri} = 1 \text{ if } Y^*_{Ri} > 0 \text{ or } = 0 \text{ otherwise}$$

$$Y^*_{Si} = X_{Si} \beta_S + u_{Si} \quad (2)$$

$$Y_{Si} = 1 \text{ if } Y^*_{Si} > 0 \text{ or } = 0 \text{ otherwise}$$

$$E [u_{Ri} | X_{Ri}, X_{Si}] = E [u_{Si} | X_{Ri}, X_{Si}] = 0$$

$$\text{Var} [u_{Ri} | X_{Ri}, X_{Si}] = \text{Var} [u_{Si} | X_{Ri}, X_{Si}] = 1$$

$$\text{Cov} [u_{Ri}, u_{Si} | X_{Ri}, X_{Si}] = \rho$$

A correlation coefficient that is significantly positive would indicate that unobservable factors which are related to receiving religious education are positively related to also receiving secular education. By contrast, if the correlation coefficient were negative, then unobservable factors that increase the probability of religious education attendance would be negatively related to the probability of the child receiving secular education.

The same set of characteristics is used as potential determinants of the decision to send a child to receive secular or religious education. Variables included are the child's age, sex and location (state, urban or rural); the level of education of the child's mother and father; household wealth, with households split into five quintiles as indicated above; ethnicity (distinguishing three ethnic groups – Hausa, Fulani and Kanuri – which make up 85% of the sample of Muslim children in the two zones); and availability of secular education, as measured by the distance of the community from the closest primary school in kilometers. A

measure of attitudes would be essential. Unfortunately the survey asked attitudinal questions only to those parents and guardians whose child was receiving secular education. However, the question whether ‘primary schools should teach pupils about reproductive matters’ was asked of all parents and guardians. It is used as a proxy of favorable household attitudes towards secular education. About two thirds of parents and guardians agreed with the statement.

(b) Quality of education

The decision to send a child to receive secular schooling depends on an assessment of the associated costs and benefits. While direct costs may constrain access to school among poor households (Kazeem, Jensen, & Stokes, 2010), a more systematic assessment has found that direct costs, which are low, are not binding constraints in the Nigerian context (Lincove, 2009). However, what is likely to be a more important parameter is the perceived benefit, in other words whether households believe that education is positively linked to subsequent income earning opportunities for their children. A key factor determining earning opportunities is whether households perceive that schooling helps develop necessary skills. These perceptions are shaped by direct observation.

The 2010 Nigeria Education Data Survey contains a direct assessment of literacy skills. Children older than six years were asked to read a simple sentence from a card in English or in Hausa. The survey distinguishes between children who read without difficulty, read with some difficulty or cannot read at all. The clearest sign of the deteriorating quality of education is the very low percentage of children who could read after several years in school (**Table 4**)¹². Among those children who completed their schooling at the end of the six-year primary cycle, only a quarter could read a simple sentence in English (with another quarter only being able to read with difficulty). The percentage of those who were still in school after six years and could read was only a little higher (34%)¹³. One in six children were unable to read even after nine years of

¹² A modified Arabic script (ajami) is used in many parts of East and West Africa to write local languages, including Hausa, Fulfulde and Kanuri in the case of northern Nigeria. Literacy in Arabic still plays a role given how widespread qur’anic education is. However, literacy statistics in ajami are not available and the 2010 Nigeria Education Data Survey does not provide any further insights.

¹³ The percentage of children who could read in either English or Hausa is only higher by four percentage points (39%).

schooling. The gap between the richest and the poorest groups shows that it is the latter who are faced with the biggest challenges in their schooling experience (**Figure 4**).

In order to capture household perceptions of the quality of education (and therefore implicitly establish the perceived benefit), the percentage of children who could read among those who had completed 4-6 years of schooling (irrespective of whether they are still in school or not) was calculated for every cluster in the dataset. The cutoff point of 4-6 years was chosen because it is generally accepted as necessary before children can develop literacy skills. The average percentage of children who could read after 4-6 years of schooling was 25%.

5. RESULTS

Column (1) in **Table 4** presents the results on the full sample of Muslim children aged 6-14 years in the North East and North West zones. They confirm that boys are significantly more likely to receive secular education than girls. Gender does not at first sight appear to be a significant factor in determining religious school attendance¹⁴.

Father's education is a stronger determinant of the probability that a child will receive secular education than is mother's education. Moreover, the effect is increasing the higher the level of father's education. Having a mother who has at least completed primary education increases the probability of receiving secular education by about 10 percentage points whereas the effect is almost twice as strong with respect to fathers' education – and rises to 27 percentage points in the case of children whose fathers have at least senior secondary education. By contrast, the effects of parental education are weaker and generally insignificant. Only a child whose father has completed primary education is more likely to receive religious education than a child whose father has no education.

¹⁴ However, this masks the fact that – within the group of religious schools – islamiyya schools are a more popular choice for girls' education than qur'anic schools. According to the 2009 qur'anic and islamiyya school census in Kano the proportion of female students was 55% in islamiyya schools and 27% in qur'anic schools (ESSPIN, 2011).

Household wealth has a positive effect on the probability of receiving both secular and religious education, although the effect on the latter is much weaker and tapers off for the richest households. The effect of wealth is much stronger on the probability of receiving secular education, rising by up to 35 percentage points for children from the top quintile compared to those from the bottom quintile of households.

With respect to ethnicity, coming from a Fulani or a Kanuri family reduces the probability of attending secular school – relative to coming from a Hausa family, the majority ethnic group that accounts for half of the population in the sample – although the effect is statistically not significant. On the other hand, belonging to one of the numerous small ethnic groups increases considerably the probability of receiving secular education (by 17 percentage points) and reduces the probability of receiving religious education (by 18 percentage points) relative to being Hausa. Being Fulani also has a significant negative effect on the probability of receiving religious education.

The probability of attending a school that offers secular subjects declines the longer the distance from the closest primary school. The effect of distance from school is particularly strong: it reduces the probability of attending a secular school by at least 30 percentage points for the one in five children who live at least two kilometers away from school. Although there is also an effect in the same direction on the probability of receiving religious education, this is much weaker and not significantly different from zero.

Parents who express a positive view towards teaching reproductive matters at school are significantly more likely to opt for secular education for their children. On the other hand, holding such a view is not negatively related to the probability of opting for religious education.

Finally, Table 4 shows that the correlation of the error terms is negative and significant. This means that the two decisions are not independent of each other and that – after controlling for a rich set of background characteristics – the decision of parents to send their child to receive religious education is negatively related to the probability that this child receives secular education.

This may seem predictable. Looking back, though, it had not always been the case. The 1960s and 1970s were a period that witnessed rapidly increasing attendance for both types of schooling. A study that compared two cohorts of young males in Kano in 1965 and 1979 tried to establish which of three developments were taking place: whether secular education and religious education were complementary; whether they were catering increasingly for different populations and therefore becoming segregated; or whether secular education was displacing religious education (Morgan & Armer, 1988). The evidence was that the two education decisions were complementary at the time. Two examples had demonstrated this complementarity. First, among young people of the first cohort, having a father who had received secular education was positively related to the probability of attending secular education but negatively related to the probability of attending religious education. Among young people of the second cohort, having a father who had received secular education was positively related to the probability of attending both types of education. Second, a measure of religiosity moved in the opposite direction: while negatively related with secular school attendance in the earlier cohort, it had no effect by the time of the later cohort.

In the first half of the period after independence, increasing attendance of religious education coexisted with increasing attendance of secular education, as the latter was recognized as essential for accessing positions of influence despite a tradition of skepticism over the possible influence of western values on Muslim communities. As a result, the transfer of religious schools to the state that took place in the 1970s was accepted albeit reluctantly¹⁵. However, during the second half of the period after independence, the number of religious schools has increased exponentially. One hypothesis that has been put forward is that households have been disappointed by the inability of government schools to teach the Islamic religious subjects to the expected level. This hypothesis cannot be tested on the basis of available information. However, an alternative – and not mutually exclusive – hypothesis is that the attempted integration of religious and secular instruction had been originally supported by communities on the assumption that the

¹⁵ The transfer of religious schools to the state in the 1970s was aimed to ensure equality. It was not confined to Islamic schools but also extended to Christian schools where there was more resistance (Nwagwu, 1979). In recent years, there is discussion of handing back government schools to the Christian missions that originally owned them.

government schools would teach competently not only religious but also secular subjects. This latter hypothesis can be tested using the information on the literacy status of children who have completed 4-6 years of schooling and in particular the average literacy rate within the cluster¹⁶.

In order to establish whether the low quality of secular education is a possible explanation for the decision not to enroll a child to a secular school, we need to limit the sample to those clusters in which there were at least some children with 4-6 years of education. Otherwise the probability of having no children with 4-6 years of schooling in the cluster would be correlated with the probability that no child had attended secular school at all in that cluster. This reduces the size of the sample by about a fifth. As a first step, therefore, the analysis is repeated for this sub-sample.

Results are presented in column (2). The correlation coefficient remains negative and significant. Most of the other coefficients are also unaffected. The effect of factors such as wealth and distance from school is somewhat reduced. The reason is that the excluded clusters are not random: areas where no children have completed four to six years have lower socioeconomic development indicators. In addition, two coefficients change: being male is negatively related to attending religious schools (whereas it was insignificant in the full sample); and living far from a secular primary school increases the chance of attending religious schools (which was also insignificant in the full sample).

Results after the inclusion of the quality of education variable are reported in column (3). A higher percentage of literacy among those with 4-6 years of education in the cluster increases the probability of a child receiving secular education. The effect is sizeable: the probability of a child attending secular education in a cluster where four in five children could read after 4-6 years of schooling is 12 percentage points higher than if the child lived in a cluster where one in five children were able to do so. The effect on the probability of receiving religious education is not statistically significant. There are no major changes to other coefficients. Finally, the correlation coefficient of the error terms remains negative and significant

¹⁶ The same hypothesis has been put forward to explain patterns of secular and religious school attendance in Senegal by André and Demonsant (2009) but could not be tested due to the lack of appropriate data.

confirming the interdependence of the two decisions even after controlling for the quality of secular education.

6. CONCLUSION

The fact that more than ten million children are reportedly out of school in Nigeria presents perhaps the largest educational challenge in the world. A unique characteristic is that most of these children are exposed to a non-formal religious education system that has been established for centuries across West Africa. Over the years, the existence of this parallel system has been recognized as an entry point for addressing the challenge of low access to school.

A major move was made in the 1970s when religious schools across Nigeria were transferred to the state. However, the experience of the last thirty years was not positive. The quality of the education provided in government schools has declined. This paper has focused on one aspect of this decline, the failure of government schools to deliver acceptable quality in the teaching of secular subjects. Only a third of children are literate in English by the end of primary school, and only slightly few more are literate in either English or Hausa, the lingua franca of the region and mother tongue of half of the children. However, such a conventional measure of quality is not the only concern especially among parents in northern Nigeria. They perceive the quality of education in government schools to have declined in other respects as well. First, the schools that were transferred to the state were originally community-based with a strong relationship of accountability based on the financial support that communities provided; this relationship is believed to have broken down. Second, government schools have not been able to achieve a good quality of teaching in Islamic religious subjects (Abd-El-Khalick, Boyle, & Pier, 2006; Moulton, 2008). The rapid increase in the establishment of religious schools since the 1980s needs to be seen in this context.

This paper has focused on the education crisis, in particular low access to school and low learning outcomes, and its interplay with the provision of secular and religious schooling. It has avoided addressing the unfolding conflict in northern Nigeria. Although the leading organization, Boko Haram, is nominally

opposed to secular education and its values, the links between secular and religious education are far more nuanced and any analysis calls for evidence that is beyond the scope of this research¹⁷.

However, among many other factors, the government has come to attribute extremism also to the operation of religious schools that are not under its control. It has therefore embarked on an ambitious plan to increase the number of integrated religious schools in northern Nigeria. The analysis presented here suggests that a program aiming to extend the integration of secular and religious education is unlikely to be successful in expanding access to schools that offer secular subjects. The reason is that such a policy ignores that households consider the quality of secular education when deciding whether or not to send a child to attend a school that offers secular subjects. Unless accompanied by a drive to improve standards in government schools, integration in and by itself will stumble.

The preference of Muslim parents to combine Islamic and western types of education is well documented (Umar, 2003). However, the paper has presented evidence that the two systems of education are no longer expanding together: unobserved household characteristics that predict religious education are also predicting that a child will not be attending secular education.

Religious education institutions have been a key ally in the efforts to achieve Education For All in countries such as Bangladesh, Indonesia, and Pakistan. However, this does not mean that it is possible to replicate this positive experience in Nigeria.

There are some historical reasons, which help explain why the experience of Asian countries cannot be replicated in Nigeria. Comparing with the experience of South Asia, Bano (2009) identifies three possible explanations for the slow progress of integration in Nigeria. First, in South Asia, the colonial rule was long and direct and displaced the religious education system. By contrast, in northern Nigeria, the colonial rule was shorter and indirect and local authorities enjoyed relative freedom to run education affairs. Second, in

¹⁷ See Umar (2001) for an analysis of the links between secular education and Islamic fundamentalism in northern Nigeria.

South Asia, the religious elite fought for political power and the state reformed religious schools to cut their power base. By contrast, in northern Nigeria, the religious elite did not seek political power after independence for reasons possibly related to the mystic religious strand they followed. Third, in South Asia, religious schools have been formal. By contrast, the organization of religious schools in northern Nigeria has been informal. This made it more difficult for the state to intervene. Teachers have never been full time professionals or part of the religious elite. They have had to generate income on top of their teaching activities. And, as Baba (2011) notes, “little has changed in the essential character of Islamic schools as a loose network of schools under the direction of their individual patrons. This has given the schools a certain degree of fluidity that makes their interactions with Nigeria’s public education difficult, and limits their contributions to the policy goal of universal access to education”.

To these historic reasons, this analysis has added a contemporary explanation, namely that the government education system has not provided a credible alternative. Unless the quality of education in secular schools improves and the perceived benefit of secular education increases, the demand for such education will remain constrained and attempts to integrate religious and secular education are likely to fail.

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Figure 1: Percentage of five-year cohorts who have ever attended school

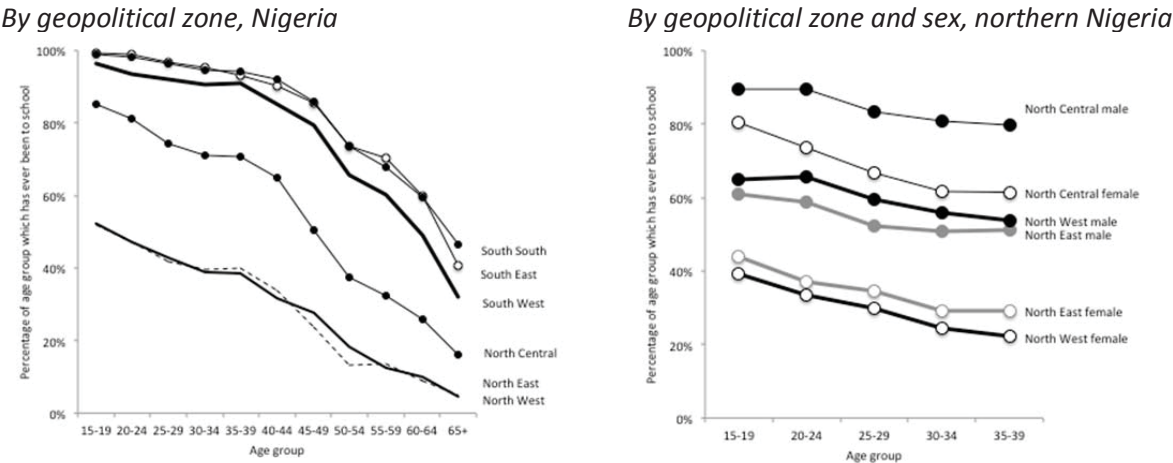
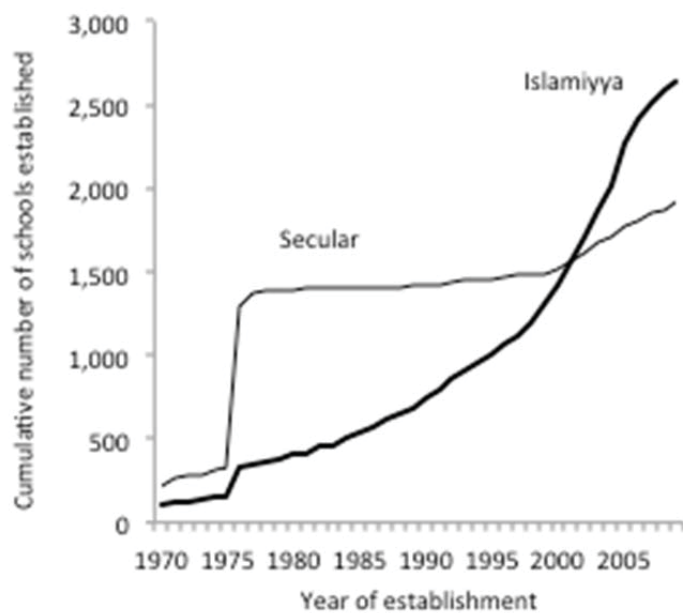


Figure 2: Map of Nigeria with geopolitical zones and states

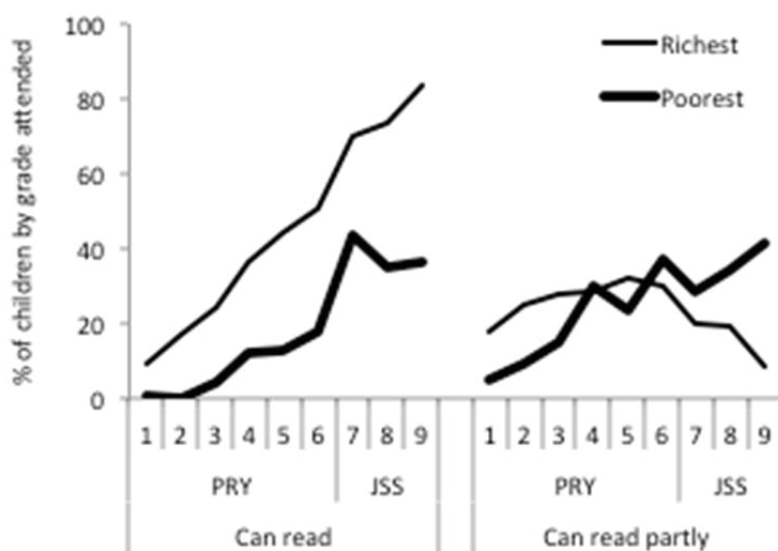


Figure 3: Cumulative number of schools by year of establishment in Kano State



Source: Analysis based on the 2009-10 Kano State Annual School Census

Figure 4: Percentage of children aged 6-14 years who can read in English by grade and wealth status, northern Nigeria, 2010



Source: Analysis based on the 2010 Nigeria Education Data Survey

Table 1: Gross attendance ratio, North East and North West zones, 2010

State	Primary	Junior secondary	State	Primary	Junior secondary
Adamawa	0.819	0.318	Jigawa	0.703	0.165
Bauchi	0.602	0.149	Kaduna	0.826	0.333
Borno	0.296	0.214	Kano	0.802	0.399
Gombe	0.675	0.285	Katsina	0.607	0.262
Taraba	0.803	0.238	Kebbi	0.489	0.291
Yobe	0.517	0.269	Sokoto	0.429	0.177
			Zamfara	0.361	0.238
North East	0.557	0.222	North West	0.642	0.288

The sample is Muslim children living in these two zones.

Source: Analysis based on the 2010 Nigeria Education Data Survey

Table 2: Secular and religious education attendance, North East and North West zones, 2010

Characteristic	No education		Only secular		Only religious		Secular and religious	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Sex								
Male	0.084	0.249	0.092	0.260	0.414	0.443	0.410	0.442
Female	0.107	0.276	0.063	0.217	0.502	0.447	0.328	0.420
Location								
Urban	0.026	0.140	0.109	0.275	0.283	0.398	0.583	0.435
Rural	0.113	0.285	0.070	0.230	0.502	0.450	0.315	0.418
Wealth quintile								
Bottom	0.212	0.385	0.049	0.203	0.600	0.461	0.139	0.326
Lower middle	0.117	0.291	0.050	0.196	0.593	0.445	0.240	0.387
Middle	0.090	0.255	0.080	0.242	0.492	0.445	0.338	0.421
Upper middle	0.050	0.192	0.082	0.242	0.380	0.429	0.489	0.442
Top	0.020	0.119	0.123	0.280	0.246	0.367	0.612	0.416
Age								
6-8	0.118	0.288	0.067	0.223	0.483	0.447	0.332	0.421
9-11	0.073	0.234	0.079	0.243	0.432	0.446	0.415	0.443
12-14	0.088	0.255	0.092	0.260	0.448	0.447	0.372	0.434
Overlapping characteristics								
Richest urban male	0.014	0.101	0.119	0.280	0.209	0.352	0.659	0.410
Poorest rural female	0.235	0.399	0.037	0.179	0.617	0.458	0.110	0.295
Total	0.095	0.263	0.078	0.241	0.456	0.447	0.371	0.433

The sample is Muslim children aged 6-14 years living in these two zones.

Source: Analysis based on the 2010 Nigeria Education Data Survey

Table 3: Percentage of children aged 6-14 years who can read by school attendance status, northern Nigeria, 2010

Schooling (years)	Schooling status	Reads		Reads partly		Number of observations
		Mean	S.D.	Mean	S.D.	
0	Never been	0.008	0.088	0.020	0.138	8512
3	Dropped out	0.013	0.114	0.074	0.264	62
	In school	0.129	0.332	0.229	0.416	1540
4-6	In school / Dropped out	0.252	0.434	0.310	0.462	3120
6	Dropped out	0.255	0.425	0.259	0.427	238
	In school	0.343	0.479	0.341	0.479	745
9	In school	0.714	0.452	0.166	0.372	381

Source: Analysis based on the 2010 Nigeria Education Data Survey

Table 4: Determinants of decision on secular and religious education, bivariate probit

	Full sample (1)			Sub-sample (2)		Sub-sample with literacy (3)		
	Coef.	t	Marg eff	Coef.	t	Coef.	t	Marg eff
Secular								
Male	0.359	9.91***	0.140	0.375	9.81 ***	0.378	9.99***	0.149
Mother's education (vs. no education)								
• Primary incomplete	0.103	1.10	0.040	0.086	0.91	0.097	1.04	0.038
• Primary complete	0.255	3.83***	0.101	0.253	3.74 ***	0.256	3.80***	0.100
• At least some junior secondary	0.208	1.45	0.082	0.164	1.18	0.159	1.14*	0.063
• At least some senior secondary	0.226	2.37**	0.089	0.202	2.24 **	0.167	1.91**	0.066
Father's education (vs. no education)								
• Primary incomplete	0.422	4.64***	0.164	0.378	4.19 ***	0.386	4.30***	0.153
• Primary complete	0.444	8.24***	0.173	0.390	7.34 ***	0.393	7.48***	0.155
• At least some junior secondary	0.553	6.36***	0.216	0.523	6.00 ***	0.515	5.94***	0.201
• At least some senior secondary	0.699	11.13***	0.273	0.681	10.58 ***	0.662	10.52***	0.253
Wealth quintile (vs. poorest)								
• Lower middle	0.220	3.02***	0.075	0.209	2.49 **	0.209	2.55***	0.081
• Middle	0.405	5.39***	0.145	0.357	4.31 ***	0.347	4.16***	0.136
• Upper middle	0.686	8.35***	0.256	0.636	7.30 ***	0.599	6.68***	0.235
• Richest	0.928	9.61***	0.351	0.860	8.50 ***	0.778	7.29***	0.302
Ethnicity (vs. Hausa)								
• Fulani	-0.142	-1.35	-0.055	-0.100	-0.97	-0.113	-1.07	-0.045
• Kanuri	-0.229	-1.42	-0.086	-0.213	-1.25	-0.182	-1.07	-0.072
• Other	0.421	4.02 ***	0.167	0.368	3.71 ***	0.372	3.79***	0.143
Distance to primary school (vs. 0 km)								
• 1 km	-0.348	-3.05***	-0.137	-0.197	-1.75 *	-0.216	-2.02**	-0.086
• 2-3 km	-0.869	-5.78***	-0.311	-0.644	-4.23 ***	-0.628	-4.16***	-0.245
• 4-6 km	-1.579	-6.87***	-0.452	-1.084	-3.60 ***	-1.103	-4.12***	-0.395
• 7 km or more	-0.810	-3.12***	-0.295	-0.440	-2.64 ***	-0.389	-2.07**	-0.154
View on reproductive issues in school	0.199	4.72***	0.077	0.181	3.96 ***	0.172	3.80***	0.068
Cluster literacy after 4-6 years of school						0.508	2.60***	0.022
Religious								
Male	-0.024	-0.77	-0.006	-0.080	-2.19 **	-0.080	-2.19**	-0.018
Mother's education (vs. no education)								
• Primary incomplete	-0.140	-1.28	-0.036	-0.120	-1.03	-0.122	-1.04	-0.029
• Primary complete	0.084	1.20	0.019	0.046	0.64	0.045	0.64	0.010
• At least some junior secondary	0.139	0.93	0.031	0.148	0.97	0.149	0.98	0.031
• At least some senior secondary	0.180	1.51	0.039	0.174	1.42	0.177	1.48	0.036
Father's education (vs. no education)								
• Primary incomplete	0.201	1.73*	0.043	0.199	1.63	0.198	1.63	0.040
• Primary complete	0.142	2.31**	0.032	0.130	2.01 **	0.129	2.01**	0.027
• At least some junior secondary	0.052	0.52	0.012	0.004	0.04	0.005	0.05	0.001
• At least some senior secondary	-0.037	-0.48	-0.009	-0.022	-0.29	-0.020	-0.26	-0.005
Wealth quintile (vs. poorest)								
• Lower middle	0.115	1.71*	0.027	0.121	1.37	0.121	1.38	0.027
• Middle	0.066	0.92	0.016	0.043	0.50	0.044	0.51	0.010
• Upper middle	0.172	1.95*	0.040	0.174	1.74 *	0.178	1.75*	0.038
• Richest	0.031	0.29	0.008	0.016	0.13	0.025	0.20	0.006
Ethnicity (vs. Hausa)								
• Fulani	-0.445	-4.96 ***	-0.111	-0.404	-3.78 ***	-0.403	-3.76***	-0.095
• Kanuri	0.085	0.56	0.016	0.025	0.14	0.022	0.12	0.004
• Other	-0.644	-5.96 ***	-0.176	-0.647	-5.86 ***	-0.648	-5.90***	-0.171
Distance to primary school (vs. 0 km)								
• 1 km	-0.079	-0.65	-0.019	-0.031	-0.23	-0.028	-0.21	-0.006
• 2-3 km	-0.154	-1.35	-0.038	-0.131	-1.02	-0.132	-1.02	-0.031
• 4-6 km	-0.188	-0.95	-0.047	0.538	1.67 *	0.541	1.69*	0.086
• 7 km or more	0.189	0.89	0.039	0.318	1.35	0.312	1.32	0.057
View on reproductive issues in school	0.004	0.06	0.001	-0.044	-0.59	-0.043	-0.58	-0.009
Cluster literacy after 4-6 years of school						-0.055	-0.26	-0.001
ρ	-0.097	-2.79 ***		-0.108	-3.01 ***	-0.108	-3.01***	
N	15,084			12,114		12,114		

The sample is Muslim children aged 6-14 years living in the North East and North West zones. Regressions include controls for age and state. Marginal effects are calculated at mean values. The marginal effect for the cluster literacy variable refers to effect of an improvement of half standard deviation.

Source: Analysis based on the 2010 Nigeria Education Data Survey