Litigant Rights Reform on Women's Empowerment: Evidence from Nigeria

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Abstract

This paper examines the impact of the 2000 Sharia law resurgence in northern Nigeria on women's educational attainment and labour market outcomes. Using data from the Nigeria Demographic and Health Survey (2003-2024) and a difference-in-differences approach, I estimate the effect of the reform on women exposed during school age. With significant declines in the years of schooling and secondary school completion in treated states, women in the treated group are significantly more likely to stop at primary school completion and significantly less likely to reach or complete secondary school in the post-reform period; thus, diminishing their earning capacity and opportunities for gainful or formal employment. Event study tests for men and placebo reveal null effects for secondary education, thus supporting the identification strategy. My findings are consistent with a framework in which formal legal change interacts with restrictive social norms to reduce household investment in girls' education, with increases in early marriage and fertility as likely mediating channels. This indicates that religious legal reforms can generate heterogeneous and unintended consequences for gender equity. While such laws may reflect specific cultural objectives, their implementation in a federal system should be accompanied by complementary policies that protect girls' schooling and expand pathways to higher-productivity employment. Without such measures, legal reforms risk reinforcing a low-education, low-return equilibrium that constrains women's empowerment and long-run development.

Keywords: Women, Reform, Litigation, Education, Employment, Empowerment

Jel Codes: J330; Z120; Z180; I25; I250; I260

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1. Introduction

Over the past two decades, developing economies have prioritized policies to expand human capital and increase female labour force participation as pathways to narrowing gender gaps and achieving inclusive growth. However, with a low ranking of 6th among 8 regions and persistent gender gaps of nearly 40% in sub-Saharan Africa (WEF, 2025), the extent to which these investments translate into improved outcomes for women depends critically on associated factors, including the prevailing institutional environment. Formal legal frameworks and informal social norms jointly shape household decisions about schooling, marriage, fertility, and work. As such, a regulatory reform that elevates religious law as a litigation mechanism can alter incentives to invest in girls' education and constrain women's economic opportunities, with potentially persistent effects on gender equity.

New Institutional Economics provides a useful lens for understanding these dynamics. Institutions, defined as both formal rules and informal constraints, structure the payoffs of economic activity and mediate the translation of policy changes into behaviour (North, 1992; 2016; Hodgson, 2004; Ménard & Shirley, 2025). When formal legal reforms reinforce restrictive informal norms, they can lower the expected returns to female education and reduce women's empowerment and agency within the household (Jayachandran & Voena, 2026). Complementing this, the gender U-curve hypothesis suggests that during early stages of development, women's labour force participation may rise out of economic necessity even as investments in female human capital stagnate. Thus, in contexts where legal and cultural institutions limit mobility and occupational choice, this can result in increased participation concentrated in low-productivity, informal sectors rather than in formal employment (Goldin, 1995; Jayachandran, 2021).

Feminist and institutional scholarship further highlights that the interpretation and enforcement of law matter for women's autonomy. Legal reforms can either mitigate or entrench gender-based discrimination, depending on how they interact with existing power structures (Para-Mallam, 2010; Fusheini, Gedzi, & Owusu, 2024; Naicker, 2025). For instance, a radical feminist perspective notes that religious legal codes can function as mechanisms of social control that regulate women's behaviour, sexuality, and reproductive rights, often with the backing of traditional authorities (Tuana & Tong, 2018). Where such codes embed patriarchal incentives, they can have direct consequences for expectations around human capital investment and for progress in closing gender gaps (Dadhania, 2022). Empirical work has documented links between legal institutions, social norms, and women's outcomes across education (Ugur, 2020), employment (Bahramitash, 2007), intrahousehold bargaining (Jayachandran & Voena, 2026), and marital choices (Efobi 2024). However, less is known about how formal legal reforms and informal norms interact to produce heterogeneous effects on women's empowerment, particularly in settings with legal pluralism as a litigation mechanism.

This study addresses that gap by examining the 1999–2000 resurgence of Sharia law in northern Nigeria as a natural experiment. Using data from the Nigeria Demographic and Health Survey and a difference-in-differences design, I estimate the causal impact of the reform on women's educational attainment and labour market outcomes. The analysis focuses on two questions. First, did exposure to Sharia law reduce investments in girls' schooling, and through what mechanisms? Second, how did changes in education translate into employment? Specifically, I argue that while

religious legal reforms may reflect specific cultural and governance objectives, their socioeconomic consequences warrant careful evaluation. The findings have implications for understanding how formal and informal institutions interact to shape gender outcomes, and for policy design in federal systems where subnational legal variation can generate divergent human capital trajectories. In particular, the results speak to the challenge of achieving Sustainable Development Goal 5 on gender equality in contexts where legal pluralism and restrictive norms coexist.

In 2000, some states in Nigeria reenacted Sharia law as a form of litigation. These reforms included the application and enforcement of Islamic criminal sanctions, local policing, and influence on civil matters (Godefroy, 2018; Alfano, 2022). The pro-male orientation of Sharia and male influence through social and gender norms could thrive in a society heavily dependent on male authority, but it may also lead to reduced female empowerment and worsening gender disparities. These effects could appear as limited access to education, lower achievement and progression, fewer opportunities for skill development and employment, and decreased bargaining power or decision-making ability. Therefore, this empirical study tests the hypothesis that young women subject to religious legal reforms experience declines in educational achievement, employment, and income-earning abilities. Duflo (2001) notes that measures of empowerment, including education and wages, can indicate the development of human capital and the degree of dependence women face, particularly those subject to religious law.

This study uses data from the 2003, 2008, 2013, 2018, and 2024 waves of the Demographic and Health Survey (DHS) for Nigeria to analyze the impacts of the reforms. It employs a difference-in-differences design and relies on variation in the enforcement location and timing of the law change by age cohort for women, as well as variation in religion, to investigate the intended impacts. The analysis shows that locational variation among exposed women yields larger effects than religious variation within the reform states. For instance, treated women are significantly more likely to complete only primary school and significantly less likely to transition to or complete secondary school. This is associated with a decline in educational attainment (by an average of 30 percentage points) and in years of secondary schooling (by an average of 3.5 years) for exposed women. This truncation at the primary-secondary transition is linked to early marriage or puberty-timed dropout. Moreover, consistent with Godefroy (2018), I find an increase in overall employment for exposed women, but not for the uneducated. Specifically, the negative employment pattern or insignificant earning capacity for the uneducated exposed women suggests associated informalities, despite the increase in the labour of women with little or no education. These findings highlight education as a significant avenue for addressing gender inequality and women's emancipation. However, there are concerns regarding the reduction of opportunities for women’s empowerment- employment and earning abilities- particularly among those with little or no education in regions of strict religious legal systems.

This study makes three contributions. First, it adds to the literature on New Institutional Economics and gender issues by showing how formal legal change interacts with informal norms to produce divergent outcomes on women's empowerment. Evidence from MENA and South Asia on religious laws and women’s human capital is mixed. Some studies find positive effects on female education (Lankina and Getachew, 2013; Meyersson, 2014) and health-related social support (Blaydes, 2010),

while others document adverse effects on property rights, fertility, and mobility (Weimann, 2010; Lastuka, 2018; Godefroy, 2018; Udoh, Folarin, and Isumonah, 2020). Socio-cultural norms also matter: bans on headscarves can hinder educational equality (Ugur, 2020), and kinship norms, such as patrilocal exogamy in South Asia, can worsen women's educational outcomes (Rammohan & Vu, 2018). More specifically, litigation and legal reforms in MENA and South Asia have heterogeneous effects. In Turkey, veiling is associated with lower education and higher unemployment (Guveli, 2011), and veil bans reduced attainment for girls expected to cover in public (Ugur, 2020). In contrast, family law and property rights reforms in Ethiopia expanded women's rights to assets and employment. They increased paid employment (Hallward-Driemeier & Gajigo, 2015), while Iranian women's negotiation within legal constraints improved social status and employment (Bahramitash, 2007). In India's Hindu caste system, lower-caste women experience greater autonomy than upper-caste women facing stricter religious restrictions (Field et al., 2020). Despite extensive evidence from MENA and South Asia, there remains limited quasi-causal evidence on how the resurgence of judicial-religious reforms as a litigation mechanism affects female human capital and labour market outcomes in Nigeria's context of legal pluralism.

Second, it provides new evidence from Nigeria, the largest economy in Africa, on a key case of legal pluralism. Unlike prior work that focuses on MENA or South Asia, this paper examines how religious law operates in a federal, multi-religious African state. Evidence from Nigeria similarly shows dual effects of Sharia reintroduction, including wider gender gaps (Alfano, 2022), higher fertility (Godefroy, 2018), and more child marriage (Ujam, 2018), alongside some gains in public order and family care (Alfano, 2022), but also weaker bargaining power and household agency for women (Efobi & Ajefu, 2023; Alfano, 2022). The study adds to the growing evidence on women's empowerment in religiously-driven societies, as well as the pathways to outcomes that help explain the co-production of institutions and culture. Third, I contribute to the SDG agenda by documenting unintended consequences of legal reforms. While SDG 5 targets gender equality, our results show that reforms focused on legal codes alone can widen gaps in education even as they raise labour participation, pointing to the need for bundled policy responses.

2. Context of the study

In 2021, the Human Development Index (HDI) for females in Nigeria was recorded at 0.504, indicating a lack of gender parity in the development index. In comparison, Botswana exhibited a higher HDI of 0.734, while Israel, among other countries, had an even higher HDI of 0.904. These data suggest that Nigeria, particularly its female population, experiences suboptimal human capital outcomes in terms of health, income, and education (United Nations Development Programme [UNDP], 2021). The 2018 Demographic and Health Survey (DHS) reported that a higher proportion of women (35%) compared to men (22%) lack formal schooling. Furthermore, in 2013, Nigeria was positioned within the upper echelon of nations in the Sub-Saharan Africa region about the prevalence of child marriage. Specifically, Nigeria had a prominently high rate of 64% of weddings occurring below the age of 18 years (Yaya, Odusina, & Bishwajit, 2019).

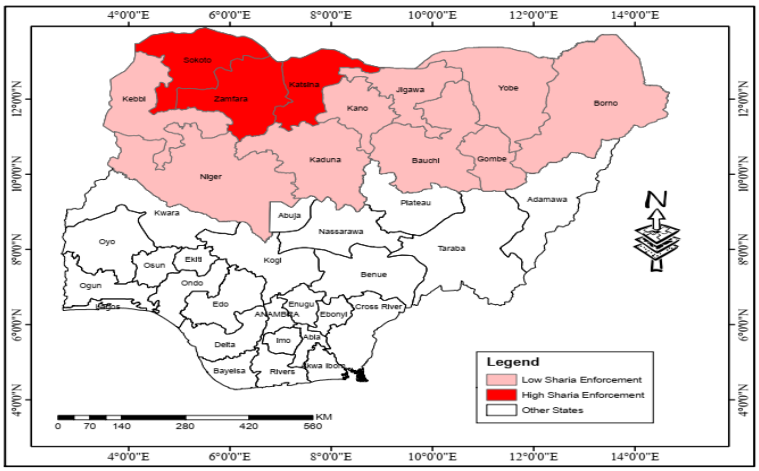
The Nigerian government has implemented policy measures aimed at enhancing human capital outcomes. For instance, the Child Rights Act (CRA) has been enacted to address the educational and health needs of children. Despite this, there are still prevailing issues of low school enrollment,

increasing adolescent pregnancies, premature entry into marriage, and early initiation of sexual activity. Scholars have highlighted the discord between the CRA and the Islamic tenet that designates a father as *Waliyy* (that is, a person with authority over another), granting him the authority to arrange a marriage for his underage daughter without her explicit consent, leading to a greater prevalence of young-age marriages (Opeloye, 2016; 2020; Ogunniran, 2010). The incidence of early marriages and early fertility can impede women's progress, growth, and autonomy within socioeconomic spheres. Furthermore, women subject to the laws of religiously inclined or motivated groups may experience detrimental impacts on the potential for sustainable human capital development. Hence, a prominent subject in the discourse on development in Nigeria pertains to comprehending the additional barriers that impede the development and empowerment of women.

3. Description of the program (reforms)

The historical connection between the implementation of Sharia law in Nigeria and the introduction of Islam in Northern Nigeria has already been established. Before the era of colonization, the leaders of the Fulani community, together with the Jihadists of the Sokoto Caliphate and other Hausa monarchs, played a crucial role in the dissemination of Islam and the implementation of Sharia law throughout Nigeria. Before Nigeria achieved independence in 1960, the decisions made by Sharia courts were subject to repugnancy or revision according to the British system. This involved replacing a system that included corporal punishment, such as flogging, maiming, and stoning, with the English legal system, which imposed fines and imprisonment as penalties. In the presence of alternative court systems, the use of Sharia law as a legal option persisted, albeit with diminished significance (Sodiq, 2017).

In the year 2000, certain states in northern Nigeria took the lead in reviving and reinforcing the prohibition of certain materials while also introducing more elements to the Sharia system as a prominent legal recourse for Muslims residing in this area. The reform reinstated the practice of physical punishment, which had been prohibited throughout colonial rule. The revival of Sharia law as a form of criminal justice has encompassed the implementation of corporal punishment for offenses such as theft, murder, and unlawful sexual intercourse, which includes extramarital and homosexual relations. Other penalties include incarceration and monetary fines. (Godefroy, 2018). The reform included assigning *hisbah* (local policing) the duty of upholding the regulations for Muslims. The Sharia court consists of two distinct divisions, namely, the lower (community court) and the upper (an appeal court) courts, where cases may be transferred to the state (Bourbeau, Umar, and Bauman, 2019).



Source: Adapted from Historical Analysis by Godefroy (2018)

Figure 1: Sharia reform and enforcement in the year 2000 by states in Nigeria

While available reports indicate that the implementation of the reform was politically motivated, other issues included the low capacity of judges and the devaluation of women's litigant rights through the reduction of the significance attributed to a woman's testimony in the Sharia court (Kalu, 2003; Bourbeau, Umar, & Bauman, 2019). Consequently, this has resulted in the excessive vulnerability of women to coerced matrimony, sexual offenses, domestic and extramarital violence, and various other human rights issues, explicitly on the legal entitlements of females. Due to the presence of religious diversity, secular public policy, intra-ethnic spread, and the specification of the federal constitution of "no state religion" in Nigeria, the reform of the Islamic legal system is perceived as one that disregards the humanitarian aspects of Sharia law. Critics argue that the reform was enacted for political reasons and violates human rights, especially those of women (Human Rights Watch, 2004).

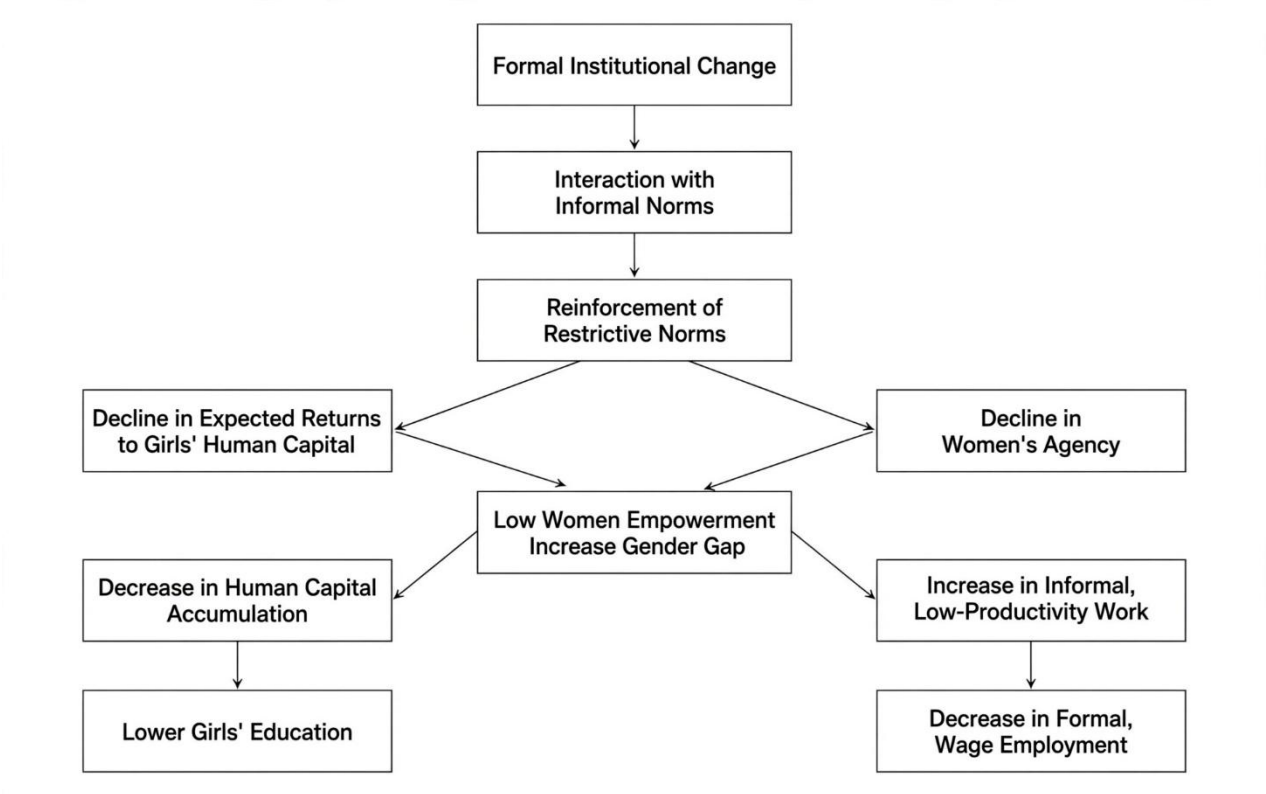
Twelve northern states have actively implemented Sharia law as a legal system in Nigeria. According to the level of proactivity and severity of legal issues, the states can be categorized into high-enforcement and low-enforcement states. According to Weimann (2010), 60% of litigation cases were reported in three high-enforcement states and nine low-enforcement states. Figure 1 displays the states with high-enforcement—Zamfara, Katsina, and Sokoto—and those with low-enforcement— Kebbi, Niger, Kaduna, Bauchi, Kano, Jigawa, Gombe, Yobe, and Borno (see Alfano 2022).

4. Conceptual Framework

This study's conceptual framework integrates New Institutional Economics (NIE) to explain how religious judicial reform affects women's empowerment through education and employment (North, 1990; Ménard & Shirley, 2025). At its core, the framework posits that the 2000 judicial reform in northern Nigeria, which institutionalized Sharia law, altered household incentive structures. From an NIE perspective, formal rules interact with informal institutions- norms, social codes, and cultural beliefs- to shape economic behaviour (Ménard & Shirley, 2025; Alesina & Giuliano, 2015). When formal legal changes reinforce restrictive informal norms, they reduce the expected returns to human capital investment for girls and weaken women's empowerment and agency within the household (Polachek, 2004; Jayachandran & Voena, 2026). In such contexts, policy risks mirroring rather than challenging prevailing norms. Building on this, women's

empowerment depends on the joint influence of economic opportunities, legal rights, and social norms. When formal institutions reinforce restrictive norms, they lower returns to investing in girls and trap households in low-agency equilibria, with downstream effects on both human capital accumulation and labour market outcomes. These mechanisms also align with the gender U-curve literature, which argues that women's labour force participation can rise in early stages of development even as investments in female education lag (Goldin, 1995; Agénor, 2012). Where legal and religious institutions impose mobility and occupational constraints, this dynamic can push women into low-productivity informal work rather than formal wage employment.

Figure 2 presents the hypothesized pathways. The judicial reform is treated as a shock to the institutional environment. It is expected to influence two main outcome domains: 1) human capital development, measured by years of schooling and secondary completion, and 2) employment outcomes, measured by participation and earning ability. Two mechanisms mediate these relationships. First, consistent with evidence from developing contexts, legal and normative restrictions can increase early marriage and fertility (Field & Ambrus, 2008). Earlier marriage raises the opportunity cost of schooling and increases the likelihood of dropout, particularly at the secondary level. Second, lower educational attainment limits access to formal sector jobs. As a result, women are more likely to be employed in informal commerce and agriculture, sectors with low barriers to entry but also low returns and limited protections (Sharma & Das, 2021; Duflo, 2012).



Source: Synopsis from the NIE Theory (Ménard & Shirley, 2025) & Women's Agency (Jayachandran & Voena, 2026)

Figure 2: Relationship Between Religious Judicial Reforms and Women's Empowerment

From this framework, I hypothesize that:
H_1: The religious judicial reform reduces women's educational attainment, with effects concentrated at the secondary level.
H_2: The reform-associated employment increases women's participation in low-paying and informal jobs.

While I expect the effect of the reform to be heterogeneous and larger for women with some prior schooling, women without education are likely to experience little change in employment quality. Thus, the framework suggests that religious legal reforms can have heterogeneous and unintended consequences for gender equity. In the absence of complementary investments in girls' schooling and pathways to formal employment, such reforms may reinforce a low-education, low-return equilibrium that constrains women's empowerment and long-term development.

5. Empirical Strategy

5.1. Data

The data for this study come from the standard Demographic and Health Surveys (DHS) conducted in Nigeria. This study used the longitudinal data of the DHS (rounds 2003, 2008, 2013, 2018, and 2024). The DHS is nationally and regionally representative, with sample weights assigned to each enumerated household. Each survey includes a detailed history of women's education, including years of schooling and attainment and employment activities (type of remuneration- in-kind or cash and sector of employment. Also, it provides information about both the location of the individuals (in terms of permanent residence) and varying indicators of a woman's livelihood for women aged between 15 and 49 years. Apart from the information on women's religion, it also provides information about a detailed history of women's education, including years of schooling and attainment, earnings type (remuneration- in kind or cash), and sector of employment. Other data include health status and occupation. Thus, the DHS has a sample size that permits the comparison of the outcomes of the legal reforms.

To estimate the effect of the judicial reform on women's empowerment, I rely on the women's birth year to identify whether they were born before or after the reform year. Each woman constitutes one observation in the dataset, and the sample is restricted to the waves being considered.

5.2. Outcomes and Data Measurement

The outcomes of interest and the measurements are summarized in Table 1. The outcome variables emanate from the measures of empowerment of the women, which include education (human capital development) and employment (that is, wage-earning capacity). This index points to the prospects for participating and being included in the labour market. Thus, considering the decisions of the Muslim women in the affected states and in post-reform years allows for the investigation of the opportunity to be empowered through analysis of education (which includes years of education and educational attainment) and the ability to earn wages through employment. Meanwhile, the intensive margin of women's empowerment is captured through women who are educated and employed: $education \times employment$.

Table 1: Outcome Variables and Measures

Variable	Measurement
Outcomes	
Education	Educational Attainment (primary & secondary)
	Years of Education
	Currently working(labour market participation)
Employment	Type of earnings (cash or in-kind)

Source: Author

5.3. Description of the dataset

A summary of the descriptive statistics of the women sampled from the DHS utilized for this study is shown in Table 2. The descriptive statistics are categorized based on the intensity of the enforcement to include the high-enforcement states, low-enforcement states, non-enforcement states, and the total. In comparison to non-Muslim religions, 98.7%, 88.9%, and 21.9% of Muslim women reside in the high-enforcement, low-enforcement, and non-enforcement states, respectively.

Among the women in the treatment category (i.e., women born between 1984-2005), given the reforms were initiated in 2000, 65.4%, while 69.7%, and 69.2%, reside in the high-enforcement, low-enforcement, and non-enforcement states, respectively. The average years of education of the women at the captured level of education is 1.9 years (approximately 2 years) in the high-enforcement states, 3.2 years (approximately 3 years) in the low-enforcement states, and 8.4 years in the non-enforcement states. In comparison to women in other states, the women in the enforcement states have fewer years of education at their levels of education. Of those currently working, 48.7% reside in high-enforcement, 50.9% in low-enforcement, and 67.6% in non-enforcement states; out of the women currently working, 95.5%, 87.2%, and 79.5% receive their wage in cash, respectively, while the others receive their wage in kind or do not get paid at all. The descriptive trend suggests low education and earning capacity among women currently working in the high-enforcement states. Moreover, the distribution reflects a low number of education years for the spouses of the women, with an average of 3.1 years in the high-enforcement states, 4.0 years in the low-enforcement states, and 9.2 years in the non-enforcement states.

The average ages of the women over the survey years are 28.3, 28.4, and 29.2 years in the high-, low-, and non-enforcement states, respectively, while that of their spouses is 42.9, 41.9, and 42.3 years, respectively. The average age of the women at first marriage is 15.2, 16.1, and 20.1, respectively, in the high-, low-, and non-enforcement states. With an average marital age of 19.8 in the non-enforcement states, it indicates that the proportion of women who marry below the age of 15 years is still prevalent in the high- and low-enforcement states. Also, the average age at first birth across the samples is 17.8, 18.2, and 20.8 in the high-, low-, and non-enforcement states, respectively.

Furthermore, the mean results show women have an average of three children in the high- and low-enforcement states and two children in the non-enforcement states, thus demonstrating a higher fertility trend in the enforcement states. The heads of households reflected were predominantly male in the enforcement states, with 4.2% and 6.9% female-headed households in the high- and low-enforcement states, respectively, and 25.7% in the non-enforcement states. Moreover, 7.6 and 7.4 are the average household sizes in the high- and low-enforcement states, respectively, while 5.7 is the case in non-enforcement states. The proportion of women living in rural areas is high in the

high-enforcement (78.5%) and low-enforcement (70.4%) states but moderate in the non-enforcement (51.6%) states.

Table 2: Statistical Summary of the Dataset

Variable	High-enforcement		Low-enforcement		Non-enforcement		All women	
	Mean	*N*	*Mean*	*N*	*Mean*	*N*	*Mean*	*N*
Educational outcome								
Years of education	1.985	14,604	3.256	47,178	8.736	98,975	6.514	160,757
Educational attainment (At least Secondary)	0.062	14,611	0.094	47,211	0.278	99,002	0.449	160,824
Earnings outcome								
Type of earnings from work	0.955	7,532	0.872	25,827	0.795	69,351	0.826	102,710
Respondent currently working	0.487	14,557	0.509	47,080	0.676	98703	0.609	160,340
Intensive outcome								
Years of education: currently working	1.851	7,084	3.315	23,946	8.609	66,715	6.822	97,745
Years of education: not working	2.114	7,467	3.197	23,102	9.002	31,963	6.035	63,532
Explanatory variable								
Muslims Women	0.987	14,611	0.889	47,211	0.219	99,002	0.486	160,824
Born 1984-2005 (post)	0.697	12,188	0.692	39,456	0.538	84,158	0.654	137,802
Control variable								
Household size	7.465	14,611	7.676	47,211	5.748	99,002	6.469	160,824
Head of the household	0.042	14,611	0.069	47,211	0.257	99,002	0.183	160,824
Location of respondent (rural)	0.785	14,611	0.704	47,211	0.516	99,002	0.596	160,824
Tribe								
Hausa-Fulani	0.979	14,611	0.653	47,211	0.053	99,002	0.313	160,824
Igbo	0.002	14,611	0.006	47,211	0.241	99,002	0.150	160,824
Yoruba	0.002	14,611	0.008	47,211	0.216	99,002	0.135	160,824
Other	0.017	14,611	0.333	47,211	0.491	99,002	0.401	160,824
Mechanism								
Child marriage	0.834	12,974	0.400	39.751	0.340	66087	0.528	118,812
Age at first birth	17.801	11,692	18.220	36,261	20.821	64,749	19.671	112,702
Age at first marriage	15.291	12,974	16.169	39,751	20.163	66,087	18.295	118,812
No. of children	3.053	14,611	2.971	47,211	2.215	99,002	2.513	160,824
Other variables								
Age of respondent	28.393	14,611	28.487	47,211	29.226	99,002	28.934	160,824

Source: Demographic and Health Surveys for Nigeria 2003, 2008, 2013, 2018, and 2024

Note: The education years are defined as the total number of years of formal education, which led to a further split between primary and secondary education. Primary education is coded as 1= if a woman ever had primary education and 0 if no primary education, or no formal education; while secondary education is coded as = 1 if a woman ever had secondary education and 0 if only complete primary only, incomplete primary or no formal education. Employment is coded as 1 for women who are currently working and 0 if otherwise; while earnings are coded as 1 if a woman currently working is paid in cash only, or both cash and in-kind; and 0if not paid or only paid in kind. is paid in cash or kind, and 0.

5.4. Specification and Identification

5.4.1. Identification by Religion

I estimate the effect of judicial reform- Sharia law on women's empowerment by examining educational and related outcomes of employment and wage-earning capacities in Nigeria. I capitalize on the timing of the reform in each State in Nigeria over the years. The pluralistic judicial system that included Sharia law targeted a religious sect, which is Muslims; thus, allowing a clear identification of timing, targeting, and comparison of the reform across religions and states that implemented and those that did not.

The empirical approach in this study is the differences-in-differences technique. The benefit of this approach is that it could clearly define the "treatment" group as women (who are Muslim and reside in an enforcement state) whose empowerment is affected by the reforms[2].

Following the Card & Krueger (1994) double difference specification[3] as well as other studies (Deininger & Jin, 2009; Heath & Tan, 2020), I explore the variation in religion and the timing of the reform. Specifically, as expressed in Equation (1), this variation compares the Muslim women in the reform enforcement states with the non-Muslim women in the enforcement states[4]. Therefore, I specify $religion_s$ = 1 if the woman is of the affected religion (Muslims) and = 0 if otherwise (non-Muslims). As noted above, non-Muslims in reform-enforcement states have legal protections in other secular courts to seek redress. Thus, the treated groups are the exposed young women who are of the affected religion[5] who reside within the reform-enforcement states, while the comparison or non-exposed groups are those of the non-affected religion that equally reside in the reform-enforcement states.

$$y_{its} = \alpha + \varphi_{**} religion_{is} \times post_t + \propto religion_i + \delta X_{its} + \tau_t + \theta_s + \varepsilon_{its} \quad (1)$$

For equation (1), y_{its} is an outcome for a woman *i* in year *t* in state *s*. As summarized in Table 1, the outcome variables of interest include (a) educational attainment of women, which is decomposed into no education (=0), completion of primary (=1), and post-primary education (≥2); (b) years of education of women as a robustness, (c) if the household is male dependent or the women contributes to family income (i.e., a binary indicator of the current work status of the women); and (d) wage-earning capacity of the woman- the type of earnings from the work of the women [i.e., a binary indicator of work paid in cash; "not paid" and in-kind payment (= 0), and cash payment or cash + in-kind payment (= 1).

Equation 1, φ_{**} is the coefficient of interest for the interaction of $religion$ and $post$. X_{its} is the set of covariates observed in the time period, which include a binary indicator for 'if the head of the household is a woman', residence location using a rural dummy, and the tribe of the woman. For instance, the Sharia communities are largely male-dominated areas, and a female head will be rare compared to non-Sharia communities (Udegbe, 2004). Therefore, the female-headed households are accounted for as a control in the analysis, and it should be noted that these covariates are

[2] This approach was previously applied by Duflo in 2001 to examine the impact of an intervention—massive school building projects in Indonesia—on educational outcomes. Moreover, Heath and Tan (2019) adopted this approach to investigate marital outcomes.

[3] Card and Krueger compared employment in fast-food restaurants in New Jersey vs. Pennsylvania before and after New Jersey raised its minimum wage. It showed how DiD can be used to estimate causal effects using a treatment group, control group, and pre/post periods.

[4] The religious variation of Muslim women and non-Muslim Women in the enforcement states was explored despite the high representation of Muslim women of well over 90% (DHS, 2003-2024).

[5] The non-Muslim religions in the DHS survey include Christian, Traditionalist, Protestant, Catholic, and other religions.

included in the estimation to improve the model's prediction and are not likely to be influenced by the reform enforcement. Furthermore, the covariates are considered to assess the sensitivity of estimates given the mechanisms explaining the estimated effects. ε_{ist} is the error term, and φ_{**} is an unbiased estimator of the true treatment effect, assuming there are no differential time trends between exposed and non-exposed women. These coefficients of φ are expected to be zero if there is no difference between the two groups; but if differences exist, they will be significantly different from zero. There is the possibility of unobserved factors that are specific to the location, religion, and timing of the education of the woman that could affect the outcome variable. Therefore, the state-specific trends and fixed effects, which include the year of survey (τ_t) (which also captures economic shocks) and state of the resident (θ_s), are included. Standard errors are clustered at the state level; that is, by state of residence.

The 12 states include the high-enforcement states (Katsina, Sokoto, and Zamfara) and the low-enforcement states (Kebbi, Niger, Kaduna, Bauchi, Kano, Jigawa, Gombe, Yobe, and Borno). This study assumed a holistic approach for all the enforcement states to enable the overall identification of the effects and the intensity of the enforcement by distinguishing the states into high- and low-enforcement.

An element of variation that needs to be clearly defined is the *post.* The $post_s$= 1 if a woman was exposed to the reform when she was school-aged and = 0 otherwise. The standard number of years of education in Nigeria is 6-3-3-4, where 6 is the years spent to complete primary education, 3-3 is the number of years of education of girls at the junior and secondary school cadre, and 4 is the minimum number of years spent in a tertiary education system in Nigeria[6]. According to Olatoun (2012), the average age of completion of secondary education in Nigeria is 16 years. Based on this, the exposed women in the reform enforcement states are pegged against this age, noting that this category of women (i) cannot make decisions on their own and (ii) depend on their parents to sustain their livelihood. Since the reform was implemented in the year 2000, *post* is coded as 1 for women aged 16 years and below. Therefore, the exposed group of women is those whose ages fall in the category of 0–16 years (that is, those born from 1984-2005) at and after the reform year; meanwhile, the comparison group is those whose ages are 18–24 years as at the reform year (i.e., those born from 1970-1982). The exposed group includes school-age women born before or in the reform implementation year (2000). The treatment group also includes those born after the reforms because a woman whose age is 0 years at the reform year (i.e., born in the year 2000) would not begin school until 6 years after (i.e., the year 2006). Thus, while the cutoff is birth year 1984 (defining the start of the "exposed" cohort), 1983 is excluded to indicate a buffer year, By implication, for the treated women, it is expected that the exposure to the reform affects their educational attainment, given their birth year. In contrast, the effect of the reform should be close to 0 for women in the comparison group.

[6] This decomposition serves as the guide for sensitivity and magnitude check by the year of education for the exposed women

5.4.2. Identification by Location

Following the specification in Equation (1), I specify a second variation using the location of enforcement and the timing of the reform in Equation (2). In this regression, the sample is restricted to Muslim women residing in the enforcement states, as they are most likely to be affected by the reform when compared to the Muslim women residing in the non-enforcement states.

$$y_{its} = \alpha + \varphi_* reform\ enforcement_{is} \times post_t + \delta X_{its} + \tau_t + \theta_s + \varepsilon_{its} \quad (2)$$

For equation (2) $reform\ enforcement_s = 1$ if the woman i resides in an enforcement state and = 0 if the woman resides in a non-enforcement state; while $post_t$= timing of the reform. Therefore, it is expected that the response to the reform enforcement should be different for Muslim women who are exposed to the reform because they reside in the enforcement states as compared to Muslim women who reside in other states that do not enforce the reforms.

In Equation 2, the coefficient of interest is φ_*, which is the coefficient of the interaction term between $reform\ enforcement_s$ and $post_t t$. φ_* is an unbiased estimator of the true treatment effect assuming there are no differential time trends between the enforcement and non-enforcement states.

5.5. Checking Assumptions

5.5.1. Pre-Trend Event study

To check the pre-trend dimensions, I adopt a credible approach to parallel trends (Rambachan & Roth, 2023). The proxies for education (education level and years) indicate a rising trend in educational outcomes for the exposed women compared to the non-exposed women (*see* Appendices A1 and A4), which is contrary to the hypothesis of the reform not having effects on older women compared to the younger women. Therefore, for a clearer identification of the exposed women's education to judicial reform, I disaggregated the education outcomes by levels of attainment (primary education and secondary education[7]); with years of education (used as a robustness check and disaggregated as =6 (first six years of primary education), and >6 (transition into secondary education) (*see* Appendix B1 and B2).

Given the attainment of secondary education as a basic measure for human capital development, the United Nations Children's International Education Fund (UNICEF) (2022)[8] identifies the average age of secondary education completion as being 17–18 years. In addition, the National Bureau of Statistics (2020)[9] notes that the average completion of secondary education in Nigeria is 16–18 years. Thus, it is expected that the education of older women exposed to the reforms (born before 1982) would be unaffected by the reforms. Meanwhile, exposed younger women (born between 1984 and 2000, and even later, 2005) whose schooling falls within or after the reforms would be expected to be affected by them. Specifically, given the pro-male nature of the reform and the prejudice against women, it is expected that the education of the exposed women would be a decreasing function of their date of birth. Thus, to validate these assumptions, the following estimating equation (3) was employed:

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[7] Defined as a woman who has at least secondary education

[8] https://data.unicef.org/topic/education/secondary-education/#:~:text=Though%20the%20duration%20in%20each,spanning%202%20to%203%20years

[9] National Bureau of Statistics. (2020). Statistical report on women and men in Nigeria. National Bureau of Statistics, Garki, Abuja.

$$y_{its} = \alpha + \hat{\varphi} \sum_{0}^{35} (birth_year_{2000}\, X\, reform\ enforcement)_{its} + \delta Z_{its} + \tau_t + \theta_s + \varepsilon_{its} \qquad (3)$$

In Equation 3, the coefficient of interest is $\hat{\varphi}$, which is the coefficient of the interaction term ($birth_year_{2000} \times reform\ enforcement_s$). $birth_year_{2000}$ indicates the ages of the women in the year of the reform; this permits the segregation of women into the exposed (ages 0–16 years or birth years 1984–2000) and non-exposed (ages 18–30 years or birth years 1970–1982). Further, the birth year segregation enables the comparison of older (who were born before the reforms) and younger (who were born after the reforms) Muslim women. $reform\ enforcement$ is a dummy of whether the woman sampled resides in the enforcement states or not. α is the constant, Z_{its} is a vector of state-specific variables, and ε_{ist} is the error term. The state-specific trends and fixed effects include the year of survey (τ_t) and state of residence (θ_s). Standard errors are clustered at the state level.

In estimating Equation (3), educational attainment is split between women with primary education and those with at least secondary education. Therefore, in Figures 3a and 3b, the ages of the women in the year of the reform are plotted alongside the coefficients for having completed primary education and having completed at least secondary education (or beyond). While Figure 3b shows slight deviations, Figure 3a shows no trend for primary school attainment by religious variation, and the joint test that all pre-reform event-time coefficients are zero cannot be rejected (F(8, 35) = 1.6, Prob > F = 0.1364). Thus, there is no statistically significant evidence that the probability of stopping at primary school was diverging between Muslim and non-Muslim women before the reform in Sharia-adopting states. However, the exposed cohort increase is 4.7 percentage points larger than the non-exposed cohort increase. But it is marginally non-significant at conventional levels (p = 0.057), which is borderline evidence of a small positive effect on primary completion in reform states relative to non-reform states; thus, not a decline, and not clearly distinguishable from zero either. This is the difference-in-differences estimate comparing the post-reform cohort (born 1984–2005) to the pre-reform cohort (born 1970–1982), relative to the same before-after change among non-Muslim women in those states. Given that the pre-trends assumption is not violated here, this is the most credible piece of evidence in the analysis for a truncation effect specific to Muslim women in reform states. These findings are consistent with the event plots for education years (*see* Appendix- Figures B1 and B2).

This indicates that after the reform, Muslim women became relatively more likely than non-Muslim women (in the same states) to complete primary schooling but not continue to secondary. This is consistent with Figure 3c and 3d, given an interruption or withdrawal occurring right from the primary-to-secondary transition, timed close to the reform-exposed cohort. Thus, with minimal divergence from the cut-off point in Figures 3c & 3d, I am careful to completely attribute the observed influences to the judicial reform only in the focal states. Therefore, the findings here are interpreted more as an association, rather than as causation.

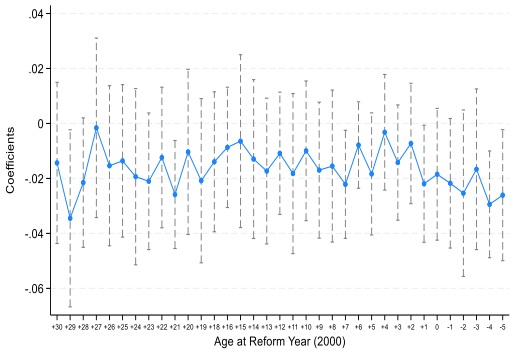


Figure 3a: Complete Primary Education- for Exposed Women by Religious Variation

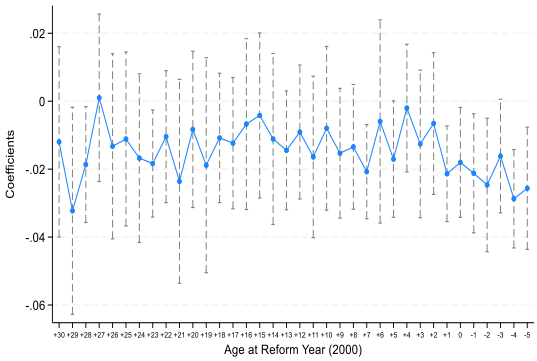


Figure 3b: Complete Primary Education for Exposed Women by Locational Variation

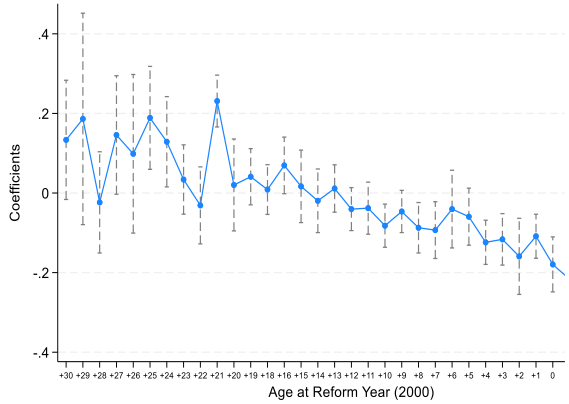


Figure 3c: Secondary Education for Exposed Women by Religious Variation

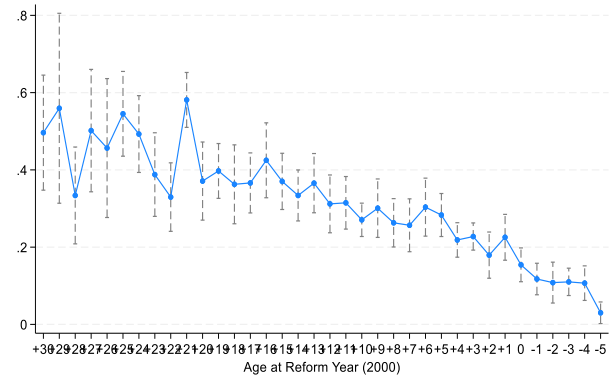


Figure 3d: Secondary Education for Exposed Women by Locational Variation

Notes: Each panel plots coefficients (with 95% confidence intervals, dashed) from a regression of the labeled outcome on age-at-reform-year dummies, comparing Sharia-reform states to non-reform states, for male respondents. Age at reform = 2000 − birth year. Primary Education Attainment- measured as those having at least primary education, which include those who attended or completed primary education; Secondary Education Attainment- measured as those who attended or completed secondary education. Variation by Religion measures the Primary Education for Muslims vs. non-Muslims in Sharia States by cohorts, which include older women (1984-2005) vs younger women (1982-1970); Variation by Location measures the Secondary Education for Muslim women in Sharia States vs. non-Muslims in Sharia States by cohorts, which include younger women (1984-2005) and older women (1982-1970).

The primary education years of the older and younger women cohorts in the exposed region revolve around '0'. With this similar pattern, they can be largely passed as unaffected by the reform. This is actually intuitive, in the sense that the women exposed to the reforms can enroll and complete their primary school, given their younger and tender ages that are usually below puberty. However, in Figure 3b, while the secondary education years of older women remain unaffected, the secondary education of the exposed women is seen to be a decreasing function of the date of birth[10]. At the age of secondary school, most exposed women would have attained puberty and may face the

[10] The secondary education of the older women exposed in the reform state remains unaffected when compared to a non- Muslim woman in a Sharia State and to a Muslim woman in a non-Sharia State (including a placebo of non-Muslims in a Sharia State and non-women in a non-Sharia State). The education years of the exposed women appear to be an increasing function of their date of birth

cultural norms (aided by ruling institutions) of early marriage and childbirth, which threaten their opportunity to complete their secondary education. Thus, this study focuses on identifying the extent to which the exposed women's education is truncated and its implications for their empowerment.

5.5.2. Migration

It is expected that issues of relocation or migration might distort the validity of the observed trend between older and younger women. However, the average migration rate in northern Nigeria is less than 2%[11]. Besides, Oyeniyi (2013) observed that migrants from the north are predominantly male, and most of them do not have tertiary education. Therefore, the probability of a woman migrating in these regions is largely limited. The estimates regarding the magnitude of the effects of the reform are discussed in the following section. The differential effects of the reform in educational attainment between primary and secondary education are further explained with reference to certain mechanisms in this paper.

6. Results and Discussion

6.1. Effect of reform on education outcomes

Following the double difference specification described in the preceding section, the effects of the litigation reform on female education in the enforcement states in Nigeria are explained by First, the effects of the reform on education by *religion* (Muslim or non-Muslim) and *post* - the age cohort of the women at the reform year 2000. Second, the interaction of the *reform enforcement*—women residing in the enforcement state and their education with *post*. The outcome variables for education were measured using educational attainment (at least secondary education) and years of education (having accounted for the first 6 years of unaffected education) (for robustness). With the inclusion of the covariates, fixed effects, and clustering standard errors by state level, the results of both education outcome variables are presented in Tables 3 and 4.

6.1.1. Education Outcomes-Variation by Religion

Table 3 shows the estimates of the likely effect of the reform across religious groups within the enforcement states. *(religion × post)*. These estimates are consistent in Columns 1, 2, and 3, with the educational attainment estimates of the exposed women significantly reduced by about 4.8 percentage points and the estimate in the low-enforcement state by approximately 4 percentage points[12].

Column 4 of Table 3 indicates that the secondary education of the affected state is reduced significantly by an average of 2 years compared to a non- Muslim woman in the affected states; however, these effects are not distinguishable by reform intensity. Thus, the effects of the legal reform appear to have reduced the years of education of the exposed women significantly via variation by location and not religion, both in high- and low-enforcement states. Therefore, as hypothesized, the diminishing effects of the reforms on years of education are apparent for Muslim women according to location but not religion in the enforcement states compared to the non-enforcement states.

[11] See https://www.macrotrends.net/countries/NGA/nigeria/net-migration.

[12] Restricting the estimates to secondary education reduced the observations in the high-enforcement states, which made it difficult to estimate clear effects.

Table 3: Difference-in-Difference Effect of Reform Enforcement on Education Outcomes for Muslim Women in Sharia States and Non-Muslim Women in Sharia States

Results by Educational Attainment			
	Education Attainment (General)	**Educational Attainment (High)**	**Educational Attainment (Low)**
	1	2	3
religion × post	-0.048**	-0.036	-0.038*
	(0.019)	(0.084)	(0.020)
Observations	11,550	1,341	8,069
R-squared	0.09	0.13	0.10

Results by Years of Education			
Variable	**Education Years (General) (>6)**	**Education Years (High) (>6)**	**Education Years (Low)(>6)**
	4	5	6
religion × post	-0.204*	0.053	-0.183
	(0.129)	(0.344)	(0.129)
Observations	11,495	1,792	9,703
R-squared	0.14	0.15	0.14

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

The event study of primary education for both exposed and unexposed women shows no distinguishing dimensions associated with the reform, this implies primary education remains unaffected, irrespective of the reform. Therefore, I restrict my estimate of educational attainment to the exposed women having at least secondary education. Similarly, the estimation using education years accounted for the first six years of unaffected education (by excluding them), and concentrated on post-primary education (>6), to ascertain precise impacts of the reform on the reduction given a plausible effect on secondary education

6.1.2. Variation by Location

Column 1 of Table 4 shows the estimates of the likely effects of the reform on the exposed women's educational attainment at the secondary level and by locational variations in enforcement *(reform enforcement × post)*. Concerning educational attainment, the estimates by locational variation show a 37.9 percentage point significant reduction in secondary education attainment in comparison to the unexposed women. Meanwhile, these effects are consistent in the high and low enforcement states, with 35.7 and 31.6 percentage points, respectively, and significant reductions in secondary educational attainment. It indicates that exposed Muslim women in Sharia communities experienced a significant reduction of 3.7 years in secondary education compared to Muslim women in other States in Nigeria.

This estimate is consistent with the findings in the high and low enforcement states, which reported 3.3 and 3.1 years of reduction in secondary education, respectively, with the high enforcement state having more reduction (as hypothesized, although not significant given the sample size across three states). From the estimates, I reckon that the influence of the reform is more pronounced by locational variations than by religious variations. This could largely be attributed to the sample size of comparison that allows for variation, as well as the women's locational differences, which can limit religious and reform spillovers for the non-exposed group. Meanwhile, the Muslim women in the exposed state represent 89% of the total women, which allows for minimal comparison with non-Muslim women; but the comparison with women with similar religious inclinations, which are segregated by locational exposure across states, allows for broader comparison among the exposed women, and is likely to have the biggest effects.

Table 4: Difference-in-Difference Effects of Reform Enforcement on Education Outcomes for Muslim Women in Sharia and Non-Sharia States

Results by Educational Attainment			
	Education Attainment	**Education Attainment (High)**	**Education Attainment (Low)**
	1	2	3
reform enforcement* × *post	-0.379**	-0.357	-0.316*
	(0.171)	(0.246)	(0.170)
Observations	17,620	17,620	17,620
R-squared	0.13	0.13	0.13

Results by Years of Education			
Variable	**Education Year (>6)**	**Education Years (High) (>6)**	**Education Years (Low) (>6)**
	4	5	6
reform enforcement* × *post	-0.369**	-0.332	-0.311*
	(0.169)	(0.265)	(0.167)
Observations	17,562	17,562	17,562
R-squared	0.13	0.12	0.12

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

I restrict the estimate to the secondary education level. Therefore, the estimation using education years accounted for the first six years of unaffected education (by excluding them), and concentrated on secondary education, to ascertain precise impacts of the reform on the reduction given a plausible effect on secondary education

6.2. Mechanisms explaining education outcomes

To explain the mechanism by which the education years of the exposed women have been affected, the effects of the reforms were decomposed according to women involved in early fertility and child marriage. According to Wetheridge (2022), one of the factors that reduces women's empowerment through education is early exposure to marriage and childbirth, which disrupts their abilities to either complete their education or advance to tertiary levels of education. Thus, this is a valid means of explaining the reduction in years of education among women in the reform states compared to those in the non-reform states.

6.2.1. Effect of the reforms on education through fertility (Age at first birth)

The explanation for the impact of the reforms on education outcomes through fertility utilizes the variable "age at first birth." From the DHS statistics, the average estimate of the age at first birth for the exposed women is 17 years (as shown in Table 1). However, the decrease in educational attainment and years of education are evident via early fertility, and to a large extent seem to explain the significant negative estimates for education outcomes, which are consistent with our hypotheses about threats to the educational attainment of women exposed to the reform. While the religious variations had mostly insignificant estimates (*see* Table A1), the locational variations had more profound estimates. For instance, I observe that women with early fertility are likely to experience a more significant decrease in education attainment by 7.7% percentage points for women with early fertility and a 4.6-year reduction in education years (Table A2 of the Appendix). This finding indicates that the most profound effect of the reforms on the education of the exposed women is the reduction in their secondary education due to early fertility exposure, with higher magnitudes explained by locational variations.

6.2.2. Effect of reforms on education through child marriage

Further analysis of the effects of the reforms on the education outcomes of the exposed women included an examination of child marriage. This is possible by segregating years of education and

educational attainment of the exposed women based on the minimum age of marriage in Nigeria, which is 18 years according to the CRA (i.e., a binary indicator of those who married before and after 18 years of age). Therefore, the explanation for the likely effects of the reforms on education outcomes through child marriage utilizes the variable "age at first marriage". The average estimate of the age at first marriage for the exposed women is 15 years (as shown in Table 1). This decrease in years of education due to earlier marriage age corroborates the significant negative estimates for education outcomes, which are consistent with our hypotheses about threats to the educational attainment of women exposed to the reform. The exposed women by religious variations showed insignificant estimates (*see* Table B1 of the Appendix). Meanwhile, the location-level variations show that the decrease in education outcomes is evident in both education years and attainment, by 3.5 years and 5.5 percentage points, respectively (Table B2 of the Appendix). These findings on child marriage are similar to the outcomes by fertility, given that education years are likely to be reduced by an average of 3 years, especially after primary education.

6.3. Employment outcomes

Following the truncation associated with the education of the exposed to the reform, I attempt to examine whether this pattern extends into the labour market. To measure the relationship between the reforms and the employment outcomes of the exposed women, two distinct margins of women's economic activity are employed: whether a woman is currently working (labour force participation) and, conditional on working, whether her earnings are cash-based rather than in-kind or unpaid (compensation type). I hypothesized that women who are currently employed are more empowered and can earn more than unemployed women. Similarly, I hypothesized that women who earn in cash have more choices over their disposable income compared to those who earn in kind (which is somewhat restrictive, with limited options or choices)[13].

The results of the double difference estimation after the selected control variables and fixed effects were considered are presented in Tables 5 and 6. In addition to the variation by location and religion, it is important to note that the ages of the women in the year of the reform are still utilized as the *post* variation. This is because most of the sampled women could be expected to be working (whether they earn in cash or in kind) at the time of the survey year.

6.3.1. Work status (religious & locational variation)

Table 5 presents the estimates of the relationship of the reforms (by religious variation) with employment status, which is a binary representation of whether a woman in the enforcement state is currently working or not. As seen in Column 1, the reform is associated with a significant 6.9 percentage point increase in work status for Muslim women working in the enforcement states compared to non-Muslim women in the enforcement states. These disaggregated estimates are not so consistent with aggregated findings (although less significant), as women's employment reduces

[13] The employment outcomes of interest are labour market participation, which is currently working (a binary indicator of current employment), and earning capacity (a binary indicator equal to 1 if a working woman's earnings are cash-only, cash-and-in-kind, or cash-and-kind, and 0 if not paid or paid in-kind only). The sample includes variation by religion and location; standard errors are clustered by state. I report the pooled coefficient for the full sample, then re-estimate separately within four mutually exclusive education subgroups to assess whether any association is concentrated by educational attainment. An instrumental-variables approach- using the reform × cohort interaction to instrument for educational attainment, in order to estimate education's effect on employment- reports the reduced-form associations between the reform × cohort interaction and each employment outcome, rather than a mediated causal estimate.

by 9.2 percentage points in the high-enforcement states, and increases in employment status of women were 6.2 percentage points in the low-enforcement state. (Columns 3 and 4 of Table 5).

Table 5: Difference-in-Difference of the Effects of Reform Enforcement on Employment Outcomes for Muslim and non-Muslim Women in Sharia

Results of the general estimate for the 12 Sharia states				
Variable	**Work status**		**Type of Earnings**	
	1		**2**	
reform enforcement × post	0.069***		0.043***	
	(0.025)		(0.016)	
Observations	46,280		25,445	
R-squared	0.05		0.12	
	Results by intensity of the reforms			
	Work status		**Type of Earnings**	
	3	**4**	**5**	**6**
	High	**Low**	**High**	**Low**
reform enforcement × post	-0.092	0.062	0.075**	0.045**
	(0.190)	(0.401)	(0.025)	(0.016)
Observations	12,188	6,072	39,456	21,328
R-squared	0.05	0.05	0.05	0.12

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

Work status is a binary indication of whether an exposed woman is currently employed (=1) and not employed (=0); while type of earnings is coded as whether a woman can earn in cash (=1) or in kind (=0)

The estimates of the reform on women's employment (by locational variation) are seen in Column 1 of Table 6, which shows a similar increase in the employment of women by a 6.9 percentage point increase in the work status of Muslim women in the enforcement states compared to Muslim women in the non-enforcement states. These significant positive estimates by locational variation are seen to be consistent with those for the exposed women in the low-enforcement states, with a significant increase of 4.2 percentage points (Column 4 of Table 6). Thus, the positive effects of the reforms on the employment of the exposed women are significant according to the locational and religious variations, except for the high-enforcement states with either less significance (by locational variation) or negative effects (by religious variation).

6.3.2. Type of Earnings (religious & locational variation)

Table 5 presents the estimates of the relationship of the reforms (by religious variation) and the earning capacity of the exposed women- which is a binary representation of whether a woman in the enforcement state can earn in cash or in kind. As seen in Column 2, the reform has led to a significant 4.3 percentage point increase in earning capacity for Muslim women working in the enforcement states compared to non-Muslim women in the enforcement states. These estimates are consistent with the intensity of the reform, with disaggregated findings, as women's employment increases significantly by 7.5 and 4.5 percentage points in the high and low enforcement states, respectively (*see* Columns 5 and 6 of Table 5).

Table 6: Difference-in-Difference of the Effects of Reform Enforcement on Employment Outcomes for Muslim Women in Sharia States and Muslim Women in Non-Sharia States

Results of general estimate for the 12 Sharia states				
Variable	**Work Status**		**Type of Earnings**	
	1		**2**	
religion* × *post	0.069***		0.400**	
	(0.019)		(0.017)	
Observations	6,380		36,550	
R-squared	0.09		0.09	
	Results by intensity of the reforms			
	Work status		**Type of Earnings**	
	3	**4**	**5**	**6**
	High	**Low**	**High**	**Low**
religion* × *post	0.131	0.049**	0.025*	0.022
	(0.020)	(0.022)	(0.129)	(0.017)
Observations	65,380	65,380	36,550	36,550
R-squared	0.08	0.08	0.09	0.09

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

Work status is a binary indication of whether an exposed woman is currently employed (=1) and not employed (=0); while type of earnings is coded as whether a woman can earn in cash (=1) or in kind (=0)

The estimates of the reform on women's earnings (by locational variation) are seen in Column 2 of Table 6, which shows a similar increase in the cash earnings capacity of women by a 4 percentage point increase in the earnings of Muslim women in the enforcement states compared to Muslim women in the non-enforcement states. These significant positive estimates by locational variation are seen to be consistent with those for the exposed women in the high-enforcement states, with a significant increase of 2.5 percentage points (Column 5 of Table 6). Thus, the positive effects of the reforms on the earning capacity of the exposed women are significant according to the locational and religious variations.

Although these findings are inconsistent with the a priori expectation that the reforms would diminish the work of exposed women, it is consistent with the findings of Godefroy (2018), which include an increasing labour supply from the legal reforms in Sharia-affected states in northern Nigeria. However, I will further employ the educational level of the exposed women to explain the type of employment the employed women fit into. This mechanism for these work statuses and earning capacity will shed more light on the type of work the reforms promote among the exposed women when analyzed by their level of education.

6.3.3. Mechanisms explaining Employment Outcomes

One plausible explanation for the positive relationship of the reform on women's employment can be seen by considering the educational status of the exposed women. The educational status of the exposed women is a binary of those who have education (at least primary education) and those who do not. For instance, a descriptive analysis of the women's employment by educational levels shows

a rising trend for exposed women and an even pattern for the uneducated women (see Appendix C1 and C2).

The locational variation in work status or employment shows significant and positive estimates of 7.5 percentage points for the exposed women with education (and 6.0 percentage points for the religious variation), while the women without education either had insignificant estimates or negative outcomes. By religious variation, the estimates are associated with a 2.9 percentage-point decrease in the employment of exposed women, while the women without education were not associated with a significant estimate. This indicates that the educated women affected by the reform are more likely to be employed than the uneducated women. By implication, an exposed woman who is educated and employed is likely to be better empowered compared to the non-educated exposed woman. This is consistent with the findings of Faridi (2009) and Athamneh & Benjamin (2021), which note the pivotal role of education in women's labour participation in Pakistan and Palestine.

Furthermore, the analysis of earnings types revealed similar estimates when the exposed women were segregated by education status. Specifically, the women who were educated had a significant earning capacity of 2.6 and 3.9 percentage points by religious and locational variations, respectively. Thus, these results reaffirm the empowerment or reduced vulnerability of women through education and employment; the educated exposed women have significant capacity to earn more in cash than in kind, while the prospects for exposed women without education are limited across the affected states. Given the educational divide, these findings align with Polachek's (2004) argument that whether the wage gap narrows or widens depends largely on the level of human capital development.

Hence, the positive association of the reforms for the exposed women who are employed can be better explained by categories. Given the negative effects of the reform for the exposed women who are uneducated and employed in the affected states, the significant and positive effects on work exerted by the reform largely apply to educated exposed women who engage in more skilled economic activities. For instance, according to the DHS statistics, the sectoral distribution of the affected women shows increases in the trade and agriculture sectors and unskilled work from 72.18% in 2008 to 75% in 2018, and remains about 74 % in 2024 (DHS, 2008; 2012; 2024). Moreover, while trading and petty businesses are common among women's groups, agricultural employment is a leading source of labour in Nigeria (Odozi & Adeyonu, 2021). Also, from the DHS statistics, the educational attainment in the affected states grew by less than 10% between 2008 and 2018, and 12% by 2024. This increased engagement of uneducated women in medieval jobs such as peasant agriculture, low-skilled services, and unpaid family businesses in the affected states can worsen income and employment opportunities; thus, making the women less educated, more vulnerable, and less empowered in the exposed communities. This skewed relationship of the reform for the exposed women is consistent with the findings of Brown and Chaytaweep (2007) where a weak legal system in Thailand contributes to reduced wages, education, training, and career advancement for women.

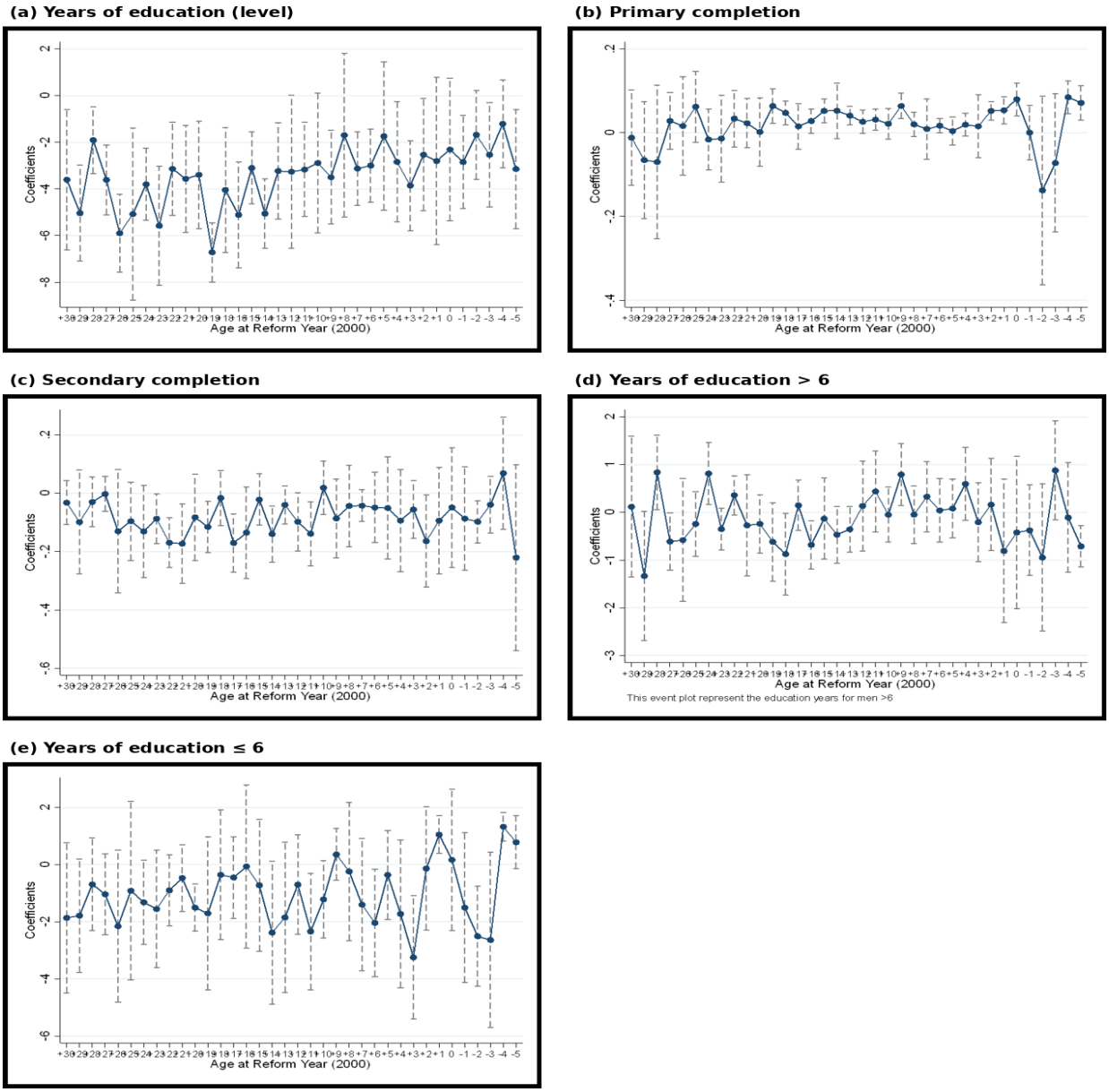
7. Robustness Check

7.1. Event Study for Exposed Men

I examine male educational attainment across religious variations. The skewed pattern of the reform was directed at female schooling and did not alter the incentives or constraints faced by men. I expect to find no effect on men. Specifically, the event-study coefficients for men should be either null or statistically indistinguishable from zero across all pre- and post-reform cohorts and across levels of attainment. This null result for men would support the identification assumption that trends in educational outcomes would have been parallel in the absence of the reform, and would rule out confounding aggregate shocks that affected both genders. Consistent with this expectation, Figure 4 plots the event-study estimates for male primary and secondary completion. This section examines whether the 2000 Sharia-law reform in twelve northern Nigerian states affected men's educational attainment. I estimate age-at-reform event-study specifications comparing reform and non-reform states across birth cohorts defined by age in the reform year (2000), for five outcomes: (a) years of completed education (level), (b) primary school completion, (c) secondary school completion, (d) completion of more than six years of schooling, and (e) completion of six years of schooling or fewer. Across all five outcomes, the evidence is consistent with little or no discernible causal effect of the reform on men's education

These results point toward little or no causal effect of the Sharia-law reform on men's educational attainment, across the five informative margins of measurement (education years, primary completion, secondary completion, and the oldest-cohort segment of the schooling-threshold specifications). For the years of education in levels, men in reform states show a deficit in years of completed schooling relative to non-reform states, on the order of 2 to 6 fewer years across nearly the entire cohort range. Critically, however, this gap does not widen, narrow sharply, or exhibit any discontinuity at the reform threshold (age 0), when compared with the cohorts who had already completed their schooling before 2000 (ages +20 to +30 at reform). In addition, the absence of any break at the reform threshold indicates this gap predates the policy and should not be attributed to it. This stands in contrast to the corresponding results for women's education discussed elsewhere in this analysis, where the reform-state/non-reform-state and Muslim/non-Muslim gaps are of comparable or larger magnitude and reinforcing, but drawing implications in the broader conclusion of observed disparities in this setting, rather than short-run consequences of the 1999–2000 legal reform.

In (b), the coefficients for the primary school completion cohorts are unaffected by the reform (ages +30 to +1) and sit in a narrow, statistically insignificant band around zero, consistent with a well-behaved parallel-trends assumption. Although two young cohorts (ages -1 and -2) show a temporary negative slide, it does not persist into the youngest cohorts (ages -4, -5); besides, the affected cells are small (respondents born 2001-2002. Therefore, I interpret this as sampling noise rather than post-reform effects. Similarly, for secondary school completion (c), the coefficients are mildly negative and noisy throughout the full cohort range (roughly -0.02 to -0.18), with no discernible slope and no discontinuity at the reform threshold. Nearly every point estimate is statistically indistinguishable from zero, and confidence intervals overlap extensively across other cohorts. Thus, just like the primary completion, I find no evidence of a reform effect. The other analysis of panels (d) and (e) on education years at primary and beyond are quite are robust to the findings in panel (b) and (c).



Notes: Each panel plots coefficients (with 95% confidence intervals, dashed) from a regression of the labeled outcome on age-at-reform-year dummies, comparing Sharia-reform states to non-reform states, for male respondents. Age at reform = 2000 – birth year; positive values denote cohorts who were older (and further from school-entry age) at the time of reform, negative values denote cohorts born after 2000.

Figure 4: Placebo Men's Educational Outcomes

7.2. Triple Difference Estimation

The triple differences for the outcome variables were estimated[14]. The estimates from the triple-difference estimator are largely consistent with the findings from the double-difference estimates on education and employment. The reform caused a significant reduction of 3.7 years in the post-primary education of the affected women in the Sharia enforcement states compared to the women in the non-enforcement states (Column 1 in Table D). Additionally, as seen in the double-difference estimate, the reforms caused secondary education to decrease significantly by 13.5 percentage points for the exposed women (Column 2 in Table D). Similar to the preceding findings concerning the indicators of employment, the reforms caused the work status and cash earnings of the exposed women to increase significantly, by 9.7 and 3.9 percentage points, respectively (Columns 3 & 4 in Table D). This affirms the claim from the double-difference estimates and allows for drawing convincing implications from our initial estimations

8. Placebo test- *Estimates by Non-Exposed Religion*

To lend credence to the identified effects of the reforms, a falsification test was conducted by ascertaining the effects of the reform on non-Muslim women in the enforcement states and non-Muslim women in the non-enforcement states using location effects and based on the triple difference (that is, *reform enforcement X non-muslim X post*).

Except for the employment status of the women, all the estimates in the placebo test were insignificant in comparison to the earlier estimates. For instance, secondary education attainment yielded an almost zero insignificant effect with a 0.002 percentage-point decrease (*see* Column 1 of Table D in Appendix). At the same time, there were positive nonsignificant estimates for the years of education of non-Muslim women in the affected states compared to the non-Muslim women in the non-affected states. Moreover, the earning capacity of the non-exposed women was a nonsignificant estimate, unlike the exposed women, whose cash earnings were positive. Thus, the effects of the reforms on the exposed women in the reform enforcement states were largely falsified.

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[14] The triple-difference estimators in this study were varied by location, religion, and time, as was done by Heath and Tan (2019). The triple-difference approach permits an estimation strategy that includes variation across three variables of interest, which in this study are variation in location, religion, and time. Specifically, this study exploited the differences in the cohorts of exposed women by residency status (in vs. out of the enforcement states), religious identification (Muslim vs. non-Muslim), and the ages of the women at the time of the reform (before vs. after the reform year). The estimator was calculated as follows:

$$y_{irtsp} = \alpha + \varphi_1(reform\ enforcement\ \times\ Muslim \times Post)_{irtsp} + \varphi_2(reform\ enforcement\ \times\ Muslim)_{irsp} + \varphi_3(reform\ enforcement\ \times\ Post)_{itsp} + \varphi_4(Muslim \times Post)_{irtp} + \varphi_5 reform\ enforcement + \delta X_{irtsp} + \delta_s + \tau_t + \gamma_t + \gamma_t X \delta_s + \tau_t\ X\ \delta_s + \varepsilon_{irts} \quad (4)$$

In Equation (4), y_{irtsp} is the measure of woman of household *i* of religion *r* of year of birth (measured as *post*) t and residing in state s at the survey period p. The coefficient of interest is φ_1, which is the coefficient of the interaction term between $form\ enforcement$, $Muslim$, and $Post$. $\varphi_2, \varphi_3, \varphi_4,$ and φ_5 represent the outcomes for Muslim women residing in the enforcement states, all women residing in the enforcement state whose secondary education occurred at the time of the reform enforcement, and all Muslim women after the reform enforcement period. The coefficients showing the vector X_{irtsp} remain the set of covariates observed for Equation 1 and 2 at the time of each survey period, and the covariates are included in the estimation to improve the model's prediction. ε_{irts} remains the error term, and the standard errors are clustered by state level. There are also the possibilities of unobserved factors that are specific to the location, religion, and timing the education of the woman that could affect the outcome variable. Therefore, the state-specific trends and fixed effects, which are the state of the resident (δ_s), survey year (τ_t), religion (γ_t), an interaction of religion and state ($\gamma_t X \delta_s$), and an interaction of survey year and state ($\tau_t\ X\ \delta_s$), are included.

9. Discussion & Conclusion

This study examines how a change in formal legal institutions, the 2000 adoption of Sharia law in northern Nigerian states, affected women's human capital accumulation and labour market participation. Drawing on New Institutional Economics, I treat legal reform as a formal rule that interacts with pre-existing informal institutions, including social norms around marriage, fertility, and female roles. The results indicate that the reform generated divergent effects across education and employment, consistent with a framework in which women's bargaining power and investment incentives are shaped by their perceived outside options (Jayachandran & Voena, 2026).

I find a negative and statistically significant decline in women's educational attainment in treated states after 2000. The decline is most pronounced for secondary schooling and post-primary years of education, suggesting that the reform raised the cost of keeping girls in school beyond the primary level. Two mechanisms appear salient. First, consistent with bargaining models of the household, a legal environment that limits women's autonomy and exit options reduces the household return to investing in girls' education (Jayachandran & Voena, 2026). Second, the reform coincided with a rise in early marriage and higher fertility in affected areas. Prior work shows that early marriage truncates schooling and reinforces gendered specialization (Field & Ambrus, 2008), and our cohort patterns are consistent with this channel. From a New Institutional Economics (NIE) perspective, formal legal change was filtered through restrictive informal norms, producing a net contraction in female schooling rather than an expansion (North 1990; Meynard & Shirley, 2025). These findings underscore that law and culture are complements, not substitutes. Where informal norms penalize female education, formal rules that reinforce traditional family structures can entrench those penalties, lowering long-run human capital formation for women.

Meanwhile, I estimate positive effects of the reform on women's current employment and on the probability of earning cash income. These gains, however, are most significant among women with prior schooling, given that most women operate in informal sectors such as petty trade and agriculture, suggesting that economic necessity increased labour supply even as human capital accumulation declined. This result aligns with the labour feminist hypothesis where, at low levels of development and female education, economic necessity can push women into the labour force even as social restrictions tighten (Goldin, 1995). Also, with few options among women with little or no formal education, this could indicate strong path dependence, while schooling improves cash-earning opportunities and abilities (Duflo, 2012). Thus, the reform did not generate a broad-based shift toward formal wage employment. Instead, it appears to have increased women's labour supply at the extensive margin while leaving structural constraints on occupational mobility intact. This pattern is equally consistent with NIE arguments that formal rules alone are insufficient to alter equilibrium outcomes when informal institutions continue to channel women into low-productivity activities (Alesina & Giuliano, 2015).

Taken together, the results suggest that religious legal reforms can have unintended consequences for gender equity when they are not accompanied by complementary investments and norm change. Education remains a critical pathway for empowerment and intergenerational mobility, but its expansion can be impeded when legal and cultural institutions lower expected returns to schooling

for girls. In a federal system such as Nigeria, where states have authority over family and personal law, this creates scope for divergence in human capital trajectories across regions.

Policy to mitigate adverse effects should therefore target both margins. First, it should protect and incentivize girls' schooling through conditional transfers, safe school access, and enforcement of minimum age-of-marriage laws; and second, expand pathways from informal to formal employment through skills training and credit, so that increased labour force participation translates into productivity gains rather than mere survival activity. Without such complementary actions, legal reforms risk locking women into a low-education, low-return equilibrium.

10. Limitations of the Study

This analysis identifies a robust, statistically consistent association between the reform and non-reform states that predates the 2000 reform by over a decade, with reduced secondary school attainment, employment opportunities, and earning capacities among Muslim women compared to non-Muslims in reform states, and among Muslim women in other non-exposed states. However, unlike primary education, the slight divergence of secondary education before the reform makes it tricky to completely attribute the findings to the reform alone- as factors like educational infrastructure or economic differences across regions could be playing out before the reform. Consequently, all reported coefficients should be interpreted as associations, rather than as causal treatment effects. Besides, further studies may want to explore causal and mediated analysis of the reform on other women-associated variables to further explore the impacts of the judicial reform.

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Appendices

Appendix A

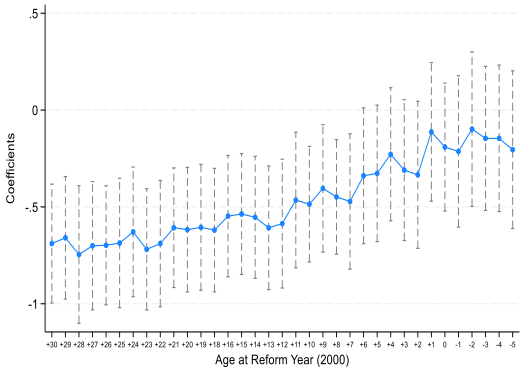


Figure A1: Education Attainment for Exposed Women by Religious Variation

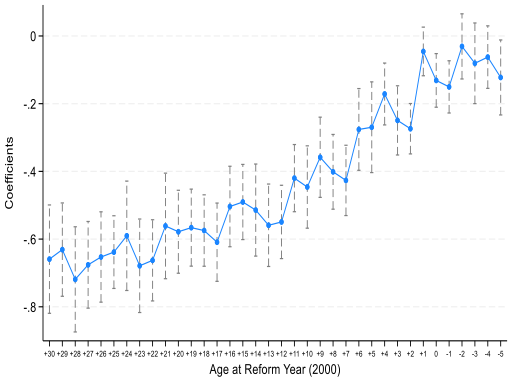


Figure A2: Education Attainment for Exposed Women by Locational Variation

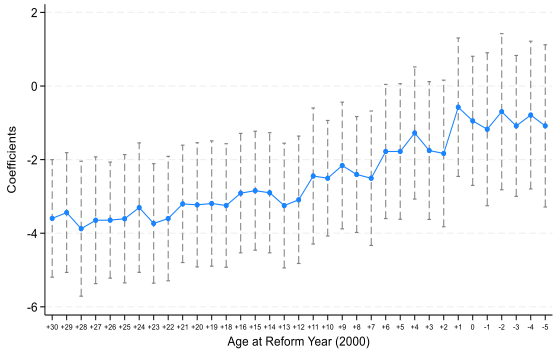


Figure A3: Education Years- Women by Religious Variation

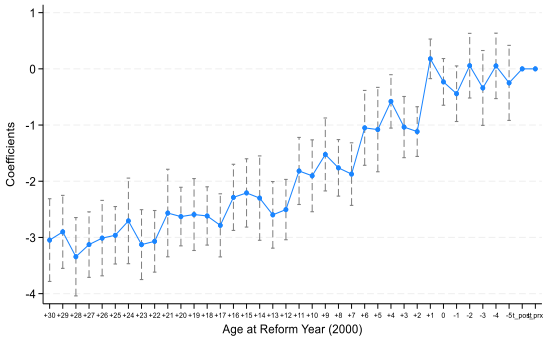


Figure A4: Education Years- Women by Locational Variation

Notes: Each panel plots coefficients (with 95% confidence intervals, dashed) from a regression of the labeled outcome on age-at-reform-year dummies, comparing Sharia-reform states to non-reform states, for male respondents. Age at reform = 2000 − birth year.
Education level and years are an increasing trend among the exposed women compared to the non-exposed women. Education level depicts education by category of no education, complete primary, secondary, and tertiary education; While education years is captured as an increasing function of the total number of years spent in school by the sampled women.

Appendix B

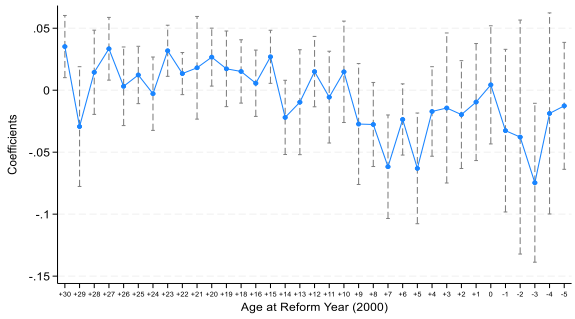


Figure B1: Education Years (=6) for Exposed Women by Religious Variation

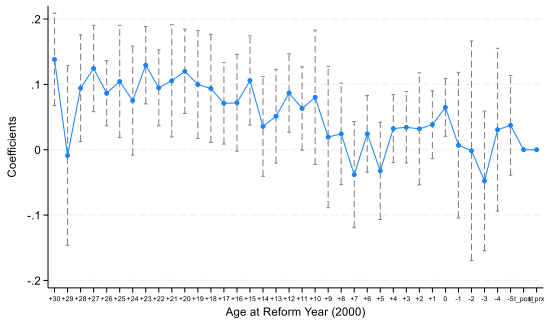


Figure B2: Education Years (=6) for Exposed Women by Locational Variation

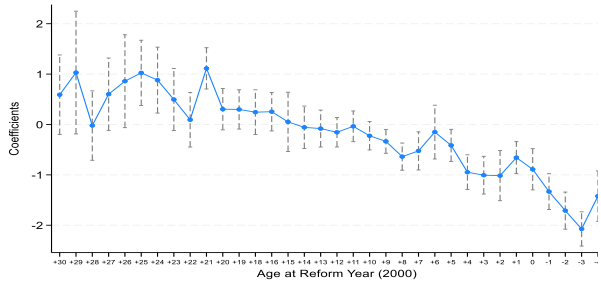


Figure B3: Education Years (>6) for Exposed Women by Religious Variation

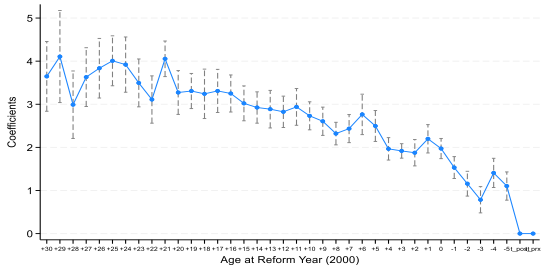


Figure B4: Education Years (>6) for Exposed Women by Locational Variation

Notes: Each panel plots coefficients (with 95% confidence intervals, dashed) from a regression of the labeled outcome on age-at-reform-year dummies, comparing Sharia-reform states to non-reform states, for male respondents. Age at reform = 2000 − birth year. Primary Education Attainment- measured as those having at least primary education, which include those who attended or completed primary education; Secondary Education Attainment- measured as those who attended or completed secondary education. Variation by Religion measures the Primary Education for Muslims vs. non-Muslims in Sharia States by cohorts, which include older women (1984-2005) vs younger women (1982-1970); Variation by Location measures the Secondary Education for Muslim women in Sharia States vs. non-Muslims in Sharia States by cohorts, which include younger women (1984-2005) and older women (1982-1970).

Appendix C

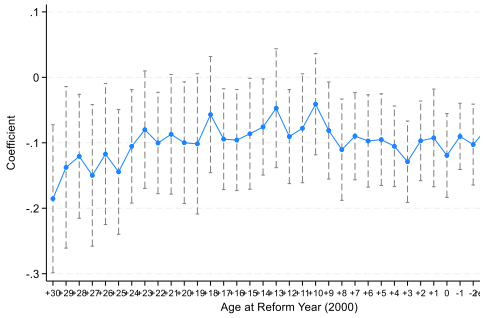


Figure C1: Employment of Exposed Women by Locational Variation| Education=0

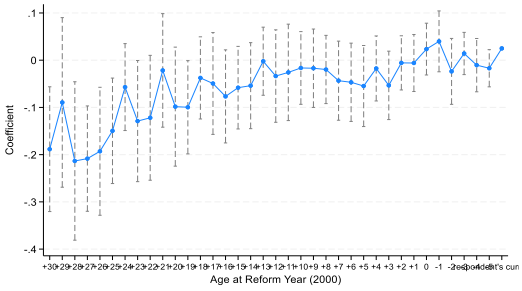


Figure C2 Employment of Exposed Women by Locational Variation| Education=1

*Notes: Each panel plots coefficients (with 95% confidence intervals, dashed) from a regression of the labeled outcome on age-at-reform-year dummies, comparing Sharia-reform states to non-reform states, for male respondents. Age at reform = 2000 − birth year*Figures C1 & C2- Employment status (work_status) by educational attainment (edu_attain = 0 vs. 1) across age-at-reform-year cohorts, Muslim respondents in Sharia-adopting states. Note: the composition of the "no education" and "some education" subsamples shifts substantially across cohorts — the share of Muslim respondents in reform states with some education rises from approximately 14% among the oldest cohort (age +30 at reform) to 43% among the youngest (age −5 at reform). Because each subsample therefore represents a different, non-comparable segment of the population at different points on the x-axis, this figure is presented for descriptive purposes only and should not be interpreted as evidence of a cohort-specific effect of the reform on employment.

Appendix A-D: Tables on Mechanisms & Placebo

Table A1: Mechanisms for Muslim Women Education Outcomes by Fertility in Sharia States (Ref: non-Muslim in Sharia States)

Variables	Educational Attainment		Years of Education	
	Age at First Birth (Yes) 1	Age at First Birth (No) 2	Age at First Birth (Yes) 3	Age at First Birth (No) 4
religion X post	0.117	-0.020	0.732	- 0.217
	(0.069)	(0.075)	(0.351)	(0.436)
Observations	19,670	19,670	20,360	19,657
R-squared	0.16	0.31	0.16	0.31

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

This table explains the reduction in women's education (by education years and educational attainment, which is secondary education) as a result of the judicial reform through fertility (measured by 'age at first birth ') of the exposed and unexposed women (with non-Muslim women in Sharia States as the reference group). 'Yes' represents women who were 'below 18 years of age' when they had their first child, while 'No' represent the age of women as at their 'above 18 year' as at their first birth.

Table A2 Mechanisms for Muslim Women Education Outcomes by Fertility in Sharia States (Ref: Muslim Women in non-Sharia States)

Variables	Educational Attainment		Years of Education	
	Age at First birth (Yes) 1	Age at First Birth (No) 2	Age at First Birth (Yes) 3	Age at First Birth (No) 4
reform enforcement X post	-0.077*	-0.042	-0.461**	-0.305
	(0.040)	(0.045)	(0.193)	(0.242)
Observations	23,490	26,492	23,484	26,480
R-squared	0.19	0.34	0.20	0.36

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

This table explains the reduction in women's education (by education years and educational attainment, which is secondary education) as a result of the judicial reform through the fertility (measured by 'age at first birth ') of the exposed and unexposed women (with Muslim women in non-Sharia States as the reference group). 'Yes' represents women who were 'below 18 years of age' when they had their first child, while 'No' represent the age of women as at their 'above 18 year' as at their first birth.

Table B1: Mechanisms for Muslim Women Education Outcomes by Child Marriage of Women in Sharia States (Ref: Muslim Women & non-Muslim in Sharia States)

Variables	Educational Attainment		Years of Education	
	Child Marriage (Yes) 1	Child Marriage (No) 2	Child Marriage (Yes) 3	Child Marriage (No) 4
reform enforcement X post	0.088	0.079	0.515	0.365
	(0.072)	0.060	(0.370)	(0.352)
Observations	33,566	10,751	33,512	10,746
R-squared	0.16	0.32	0.16	0.32

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

This table explains the reduction in women's education (by education years and educational attainment, which is secondary education) as a result of the judicial reform through their marital experience (measured by 'age at first marriage ') of the exposed and unexposed women (with non-Muslim women in Sharia States as the reference group). 'Yes' represents women who were 'below 18 years of age' when they got married, while 'No' represent the age of women as at their 'above 18 year' as at their marriage.

Table B2: Mechanisms for Muslim Women Education Outcomes by Child Marriage of Women in Sharia States (Ref: Muslim Women in Sharia & Muslim Women in non-Sharia States)

Variables	Educational Attainment		Years of Education	
	Child Marriage (Yes)	Child Marriage (No)	Child Marriage (Yes)	Child Marriage (No)
	1	2	3	4
reform enforcement X post	-0.056*	0.026	-0.358*	0.113
	(0.042)	(0.054)	(0.206)	(0.292)
Observations	38,285	16,756	38,188	16,746
R-squared	0.19	0.31	0.20	0.32

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

This table explains the reduction in women's education (by education years and educational attainment, which is secondary education) as a result of the judicial reform through their marital experience (measured by 'age at first marriage ') of the exposed and unexposed women (with Muslim women in non-Sharia States as the reference group). 'Yes' represents women who were 'below 18 years of age' when they got married, while 'No' represent the age of women as at their 'above 18 year' as at their marriage.

Table C1: Mechanisms for Employment Outcomes by Education of Women in Sharia States (Ref: non-Muslim Women in Sharia States)

Variables	Work Status		Type of Earnings	
	Education Status (Yes)	Education Status (No)	Education Status (Yes)	Education Status (No)
	1	2	3	4
reform enforcement X post	0.060***	-0.029	0.026**	0.032
	(0.015)	(0.034)	(0.013)	(0.040)
Observations	122,782	31,910	79,681	17,199
R-squared	0.13	0.05	0.12	0.12

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

Using the reference category of non-muslim women in the reform states. This table endogenously explains the rising employment of the exposed women using a binary of educational levels of an employed woman being educated or not. While the binary of a work status is a woman being currently employed, and the binary of the exposed women being able to earn in cash (yes) or in kind (no)

Table C2: Mechanisms for Employment Outcomes by Education of Women in Sharia States (Ref: Muslim Women in non-Sharia States)

Variables	Work Status		Type of Earnings	
	Education Status (Yes)	Education Status (No)	Education Status (Yes)	Education Status (No)
	1	2	3	4
reform enforcement x post	0.075***	0.012	0.039**	0.014
	(0.016)	(0.023)	(0.015)	(0.033)
Observations	134,802	39,333	84,801	21,085
R-squared	0.12	0.06	0.11	0.11

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

Using the reference category of Muslin women in the non-reform states, this table endogenously explains the rising employment of the exposed women using a binary of educational level of an employed woman being educated or not. While the binary of a work status is a woman being currently employed, and the binary of the exposed women being able to earn in cash (yes) or in kind (no)

Table D: Triple Difference Estimate of Legal Reform Enforcement for Muslim Women in Sharia States on Outcomes (Ref: Women in non-Sharia States)

Variables	Education Outcomes		Employment Outcomes	
	Education Attainment (Secondary)	Educational Years	Work Status	Earnings Capacity
	1	2	3	4
reform enforcement X muslim X post	-0.135***	-0.371***	0.097***	0.039
	(0.030)	(0.173)	(0.023)	(0.013)
Observations	62,031	17,550	65,370	36,540
R-squared	0.28	0.14	0.12	0.17

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

All the variables employed are estimated and specified as created for the double difference estimations. Meanwhile, other interactions required for the triple difference estimates were included, which are the interaction of location, time & post = reform enforcement X muslim X post; reform enforcement X muslim; reform enforcement X post; & muslim X post. This is in addition to the controls, clustering, and fixed effect estimates. The Post= women born 1984-2005, with the comparison group as 1970-1982

Table E: Placebo: Estimate of Legal Reform Enforcement for non-Muslim Women in Sharia States on Outcomes (Ref: non-Muslim Women in non-Sharia States)

Variables	Education Attainment (Secondary)	Years of Education	Work Status	Type of Earnings
	1	2	3	4
reform enforcement X muslim X post	-0.002	0.996	0.244*	0.024
	(0.004)	(0.115)	(0.032)	(0.017)
Observations	53,274	68,152	134,802	84,800
R-squared	0.05	0.15	0.15	0.20

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

Using the reference category of non-Muslin women in the non-reform states, with non-Muslim women in the reform state, I performed a falsification check on the education and employment variables. The educational attainment, is the category of women that have at least secondary education; and the documented years of schooling.; while the employment data include the binary of a work status is a woman being currently employed and binary of a the exposed women being able to earn in cash (yes) or in kind (no)